

## Exhibit C

EXHIBIT C – SEP WORKPLAN

**D. R. HORTON / COUNTY OF VENTURA ENVIRONMENTAL HEALTH DIVISION  
WORKPLAN  
EXPANDED PHASE OCEAN WATER QUALITY MONITORING PROGRAM  
SUPPLEMENTAL ENVIRONMENTAL PROJECT**

**1. SEP Title**

Expanded Phase Ocean Water Quality Monitoring Program – Ventura County (the SEP).

**2. Organization Proposing the SEP**

D. R. Horton Los Angeles Holding Company, Inc. (Permittee) is proposing this SEP as an expanded phase of a pre-approved supplemental environmental project, the Ocean Water Quality Monitoring Program (the Project), implemented by the County of Ventura Environmental Health Division (Implementing Party).

Permittee project management contact:

Edward Perez  
Assistant Vice President and Environmental Manager  
D. R. Horton, Inc.  
301 Commerce St.  
Suite 500  
Fort Worth, Texas 76102  
(817) 390-8200 extension 8154  
eperez@drhorton.com

**3. Name of independent management company to oversee implementation of the SEP (if applicable)**

Not Applicable

**4. Third party completing the SEP project**

County of Ventura  
Environmental Health Division  
William Stratton, Manager  
805-654-2821  
Bill.Stratton@ventura.org

As the Implementing Party in the Stipulated Order, County of Ventura Environmental Health Division will manage and implement the SEP and is independent of both Permittee and the Los Angeles Regional Water Quality Control Board (the Regional Board).

## EXHIBIT C – SEP WORKPLAN

### 5. Key project team members

Edward Perez  
D. R. Horton, Inc.  
301 Commerce St.  
Suite 500  
Fort Worth, Texas 76102  
(817) 390-8200 extension 8154  
eperez@drhorton.com  
Mr. Perez is the Assistant Vice President and Environmental Manager for D. R. Horton.

William Stratton,  
Ventura County EHD  
Manager  
805-654-2821  
Mr. Stratton manages the Project, which has been approved as a supplemental environmental project by the Regional Board since 2005.

Darrell Siegrist,  
Ventura County EHD  
Supervisor  
805-648-9248  
Mr. Siegrist oversees day to day activity of the Project.

Richard Hauge,  
Ventura County EHD  
Project Coordinator  
805-654-3524  
Mr. Hauge performs the day to day activity of the Project.

### 6. The location of the SEP

The Project monitors ocean water at forty public bathing beaches located along the 42-mile Ventura County coastline. The attached Program Plan (Exhibit 1) provides additional detail and identification of locations monitored by the Project (the Sampling Locations) and describes the Project's monitoring schedule. Under the Program Plan (Exhibit 1), all forty (40) of the Sampling Locations are sampled weekly during the months of April through October, and nineteen (19) of the Sampling Locations are sampled weekly during November through March. During the SEP, the Implementing Party will expand the weekly monitoring schedule for the period of November through March by including the Sampling Locations adjacent to Mandalay Beach Drive and/or Mandalay Beach Park (Sampling Locations 32000 and 33000 in the Program Plan).

## EXHIBIT C – SEP WORKPLAN

### **7. A description of the SEP and how it fits into one or more categories of supplemental environmental projects**

The Implementing Party has been monitoring ocean water at public beaches in Ventura County since November 1998, and the Project has been approved by the Regional Board as a supplemental environmental project since 2005. The Project fits the watershed assessment and watershed management facilitation categories by gathering and providing data of ocean water quality reflecting the impacts of discharges to the receiving ocean waters. As explained below, these data are used regularly to assess public health impacts and potential sources of pollution contributing to ocean water quality. For a complete and comprehensive description of the Project, please see the Program Plan, Exhibit 1.

### **8. A description of how the SEP benefits water quality and/or quantity**

The State Water Resources Control Board, "Policy on Supplemental Environmental Projects" (Feb. 3, 2009), states: "the SEP shall directly benefit or study groundwater or surface water quality or quantity, and the beneficial uses of water of the State." The first example of such benefit identified in the policy is "monitoring programs." The Project has benefitted water quality for over ten years by the collection of bacteriological water quality data along the County's coastline and will continue to do so under the SEP. These data are utilized by various county, municipal, and state agencies, and private organizations in the assessment of adverse public health impacts and potential sources of pollution and/or contamination that may reach the coastal beach waters. The State Water Resources Control Board maintains these data on a state-wide data base.

### **9. A description of how the SEP benefits the public**

The primary purpose of California's ocean water quality monitoring efforts, as a result of AB 411 (1997), is public notification. The Project provides the public with information based on its monitoring results, via a Web site, telephone hotline, public beach advisory posting, and press releases so that informed choices can be made as to which county beaches to visit and enjoy. Please see the Program Plan, Exhibit 1 for additional detail on public notification.

### **10. Documented support by other agencies, public groups, or impacted persons**

The following is a list of some of the organizations that support, and have supported the Project since 1998: a) the Regional Water Quality Control Board, Los Angeles with its 2005 approval of the Project as a SEP; b) the State Water Resources Control Board; c) the Ventura County Board of Supervisors; d) the California State Parks; e) the City of Ventura; f) the City of Oxnard; g) the County of Ventura Watershed Protection District; h) the Southern California Coastal Water Research Project; i) Heal the Bay; and j) the public of Ventura County.

### **11. Monitoring Plan**

A complete description of the Project's monitoring plan can be found in the Program Plan attached as Exhibit 1.

## EXHIBIT C – SEP WORKPLAN

### 12. Scope of Work, Work Product, and Milestones

#### Scope of Work:

The SEP will cover forty-eight (48) weeks of monitoring, testing, and program administration by the Implementing Party as a part of the overall Project consistent with the Program Plan and this SEP Workplan. Program administration includes performance of activities required under the Program Plan, attached as Exhibit 1, including communication of ocean water quality information by the Project website, telephone hotline and press releases; posting and/or closure of affected beaches; and regular submission of water quality monitoring results to the State Water Resources Control Board.

Additionally, the Implementing Party will issue quarterly progress reports to the Regional Board and prepare for Permittee a certified Certification of Completion with supporting documentation as required in Paragraph 19(G) of the Stipulated Order; such documentation may include photographs, invoices, receipts, certifications, and other materials reasonably necessary for the Regional Board to evaluate the completion of the SEP and the costs incurred. If required by the Regional Board, an independent audit will be performed.

#### SEP Work Product

Quarterly progress reports
SEP Certification of Completion with supporting documentation
Independent third party audit report (if required by Regional Board)

#### SEP Milestones

Final Milestone: Completion of SEP through the Certification of Completion
--

### 13. SEP Budget

An estimated budget for the SEP is included in Exhibit 2.

### 14. SEP Performance Monitoring and Reporting Schedule

Under the SEP, the Implementing Party will submit quarterly progress reports to the Regional Board. The first quarterly report will be due on the first day of the second month of the quarter after the project commences, consistent with the Stipulated Order. The quarterly report following completion of the final week of monitoring and work under the SEP will be the final quarterly report.

Reporting Period	Report Date
January - March	May 1
April - June	August 1
July - September	November 1
October - December	February 1

## EXHIBIT C – SEP WORKPLAN

### 15. SEP Schedule of Performance and Milestones

The SEP will cover forty-eight (48) weeks of monitoring, analysis, and program administration consistent with the Program Plan (Exhibit 1) based on the projected costs provided in the SEP Budget, attached as Exhibit 2.

#### Schedule of Performance

The Schedule of Performance for the SEP is provided in the following table:

Description of SEP Activity	Schedule
Payment of SEP Amount (as defined in ¶16 of the Stipulated Order) by Permittee to Implementing Party	Within 30 days of receipt of Stipulated Order executed by Regional Board
Implementing Party commences SEP	Within 30 Days of Receipt of SEP Amount payment
Implementing Party initiates first weekly monitoring and analysis under SEP	First Week following commencement of SEP (“Week 1”)
Implementing Party adds one or more Sampling Locations to monitoring schedule during period of November through March per ¶6 of the SEP Workplan	Portion of SEP occurring during November through March
Implementing Party weekly monitoring and analysis	Weeks 1-48
Implementing Party issues weekly data submittals to SWRCB	Weeks 1-48
Implementing Party posting and/or closure of affected beaches	Weeks 1-48
Implementing Party maintains website and telephone hotline	Weeks 1-48
Implementing Party issues press releases to recipients per Program Plan	Weeks 1-48
Implementing Party submits first quarterly report per SEP Workplan ¶14	First day of second month of Quarter after SEP commences
Implementing Party submits second quarterly report per SEP Workplan ¶14	Three months following first quarterly report
Implementing Party submits third quarterly report per SEP Workplan ¶14	Three months following second quarterly report
Implementing Party submits fourth quarterly report per SEP Workplan ¶14	Three months following third quarterly report
Permittee certifies and submits Certification of Completion per Stipulated Order ¶19(G) (all required Certifications and supporting documentation to be certified and prepared by Implementing Party and provided to Permittee in advance of scheduled submittal date)	30 Days after final quarterly report

## EXHIBIT C – SEP WORKPLAN

Permittee submits third party audit report per Stipulated Order ¶19(G) (if required by Regional Board)	Within three months after completion of SEP obligations (including Certification of Completion)
--	---

### Milestones

The SEP has one final Milestone for determining completion of the SEP. The cumulative projected costs and amount of liability to be excused upon completion of the Milestone is provided in the following table.

	Milestone Description	Cumulative Projected SEP Cost	Cumulative Amount of Liability Excused
Final	Completion of SEP through the Certification of Completion	\$187,500.00	\$187,500.00

### **16. SEP Performance Standards**

For the purpose of evaluating the performance of the SEP, performance standards (Performance Standards) are provided in the table below.

#### Performance Standards

Payment of SEP Amount by Permittee as required by the Stipulated Order
Implementing Party adds one or more Sampling Locations to monitoring schedule during period of SEP occurring in November through March per ¶6 of the SEP Workplan
Implementing Party weekly monitoring and analysis consistent with Program Plan for 48 weeks
Implementing Party weekly data submittals to SWRCB consistent with Program Plan for 48 weeks
Implementing Party posting and/or closure of affected beaches consistent with Program Plan for 48 weeks
Implementing Party maintains website and telephone hotline consistent with Program Plan for 48 weeks
Implementing Party issues press releases consistent with Program Plan for 48 weeks
Implementing Party submits quarterly progress reports consistent with the Stipulated Order and this SEP Workplan
Permittee certifies and submits Certification of Completion per Stipulated Order ¶19(G) (all required Certifications and supporting documentation to be certified and prepared by Implementing Party and provided to Permittee in advance of scheduled submittal date)
Permittee submits third party audit report (if required by Regional Board)

AB 411 (Oct. 1997), in its amendments to the California Health and Safety Code, required the establishment of minimum standards for sanitation of public beaches, requirements for testing the waters for microbial contaminants and identified the bacterial indicators to be utilized for beach ocean water quality monitoring. Please see the Program Plan for additional discussion of standards applicable to the Project, Exhibit 1.

## EXHIBIT C – SEP WORKPLAN

### **17. Ultimate discharger responsibility**

Permittee ultimately is responsible for meeting the Performance Standards and Milestone of the SEP, with remedies available to the Regional Board as provided for in the Order. Additionally, California Health and Safety Code, Section 115885, provides authority and responsibility to the Ventura County EHD for implementation of the Project.



## **EXHIBIT C – SEP BUDGET**

**COUNTY OF VENTURA  
RESOURCE MANAGEMENT AGENCY  
ENVIRONMENTAL HEALTH DIVISION  
OCEAN WATER QUALITY MONITORING PROGRAM (OWQMP)**

Projected Budget for Expanded Phase Supplemental Environmental Project (SEP)

Cost of OWQMP ocean water monitoring, analysis, and program administration\* (the "Project Costs"):

- \$122/sample (based on projected program costs in fiscal year 2010-2011)

Project Schedule:

- 40 samples/week during the period of April through October
- 20-21 samples/week during the period of November through March

Weekly Project Costs:

- \$122/sample x 40 samples/week = \$4,880.00/week (April through October)
- \$122/sample x 21 samples/week = \$2,562.00/week (November through March)

SEP Budget Assumed Start of Monitoring

The first week of monitoring under the SEP ("Week 1") will be between the week starting August 1, 2011 and the week starting November 1, 2011.

SEP Duration and Budget:

- 27 weeks during April through October (budget approximately \$131,760)
- 21 weeks during November through March (budget approximately \$53,802)
- Total projected budget: approximately \$185,562

The entire SEP Amount (\$187,500.00) may be used by County of Ventura EHD to cover its actual costs to complete the SEP in accordance with the Stipulated Order and SEP Workplan. If SEP funds remain unspent from the SEP Amount after the completion of the SEP, they will be handled pursuant to ¶19(I) of the Stipulated Order.

\*Program administration includes performance of activities required under the OWQMP Program Plan, including but not limited to communication of ocean water quality information by the OWQMP website, telephone hotline and press releases, posting and/or closure of affected beaches, and regular submission of water quality monitoring results to the State Water Resources Control Board. Program administration also includes costs associated with preparation of the CEQA environmental document described in ¶19(G)(1)(iii), and preparation and submission of quarterly reports described in ¶19(E) of the Stipulated Order. These costs are in addition to the per sample cost described above and will be reflected in the quarterly reports and will be covered under the entire SEP amount.

**County of Ventura**  
**Environmental Health Division**

**Ocean Water Quality Monitoring Program**

**Program Plan - Monitoring and Notification Program Activities**

**1. Beach Identification**

Attached is a list of 40 Ventura County coastal public recreation beaches that are sampled by the Environmental Health Division's Ocean Water Quality Monitoring Program (OWQMP). (Attachment #1) Also attached are four regional maps of the 42-mile Ventura County coastline showing the locations of beach monitoring sites. (Attachment #2)

**2. Program Background and Policies/Procedures for Monitoring and Notification**

On September 15, 1998 the County of Ventura Board of Supervisors established the Ocean Water Quality Monitoring Program within the Environmental Health Division (EHD). This action was taken in response to amendments to the California Health and Safety Code (AB 411-1998) which mandated that coastal counties provide the following activities: weekly ocean water quality monitoring at public beaches during the months of April through October; posting public beaches that do not conform to State bacteria standards; and implementing public notification mechanisms when beaches are posted. The Board of Supervisors expanded the State-mandated ocean water quality monitoring program to include the months of November through March due to the year-round public use of Ventura County beaches.

In 2008, the State of California terminated funding for all ocean water quality monitoring programs, and with this action the mandate for coastal communities to monitor ocean water quality in accordance with the California Health and Safety Code Sections 115880, 115885, 115915 was also terminated. Since 2008, the OWQMP efforts have continued with grant money from the State Water Resources Control Board, and federal grant money via the Department of Public Health. As a result of reduced funding, the OWQMP monitors 40 beach locations from April 1 through October 31 and 19 beach locations from November 1 through March 30 each. The 19 sampling locations are consistent with monitoring locations listed in the NPDES permits issued by the California Regional Water Quality Control Board to the City of Oxnard and the County of

Ventura Water Shed Protection District and co-permittees. Although the State mandate is no longer in place, the OWQMP activities are carried out in accordance with requirements in the Health and Safety Code as stipulated in the various grant agreements.

It is the mission of the OWQMP to: "Assure the protection of human health and the health of the environment through the routine monitoring of coastal marine waters for bacterial contamination, to provide information as to the bacteriological quality of these waters, and to coordinate with private organizations and public agencies." The OWQMP was developed with the primary purpose of providing the public with accurate and timely information about the bacteriological quality of the ocean water at Ventura County beaches.

In accordance with the California Health and Safety Code, it is the policy of the EHD/OWQMP to be responsible for testing the waters of public beaches within the County's jurisdiction for total coliform, fecal coliform and enterococci bacteria. This testing is conducted on a weekly basis year round in accordance with the requirements of AB 411.

Whenever any beach fails to meet the bacteriological standards established by the State, the EHD/OWQMP posts the beach with conspicuous warning signs. The intention of these signs is to inform the public of the nature of the problem, advise against body contact with ocean water, and point out the possibility of risk to public health. In addition, if any beach fails to meet the standards, the beach may be resampled after initial laboratory results are received by the EHD/OWQMP in order to confirm bacterial contamination. Said beach would remain posted, if necessary, until sampling establishes compliance with standards. All posted warning signs are visible from primary beach access points, are in both English and Spanish, and include an international no swimming logo/icon. (Attachment #3)

The EHD/OWQMP also inspects Ventura County's public beaches to determine compliance with standards established pursuant to Health and Safety Code, Section 115880 and to investigate any complaint of a person of a violation of any of those standards. If violations are found, the EHD/OWQMP may restrict the use of, or close, the public beach or portion thereof until the standard is complied with. In the event of an untreated sewage release that is known to have reached the recreational waters adjacent to a public beach, the beach will be immediately closed until it has been determined that the waters are in compliance with standards established by the State. Signs, in both English and Spanish, are posted in conspicuous locations along the effected beach. (Attachment #4)

In the event of rainfall activity that results in a significant amount of urban runoff that enters recreational ocean waters and beach areas, it is the policy of the EHD/OWQMP to issue an advisory to the public. This advisory warns the public about: the potential for storm water runoff to carry disease-causing bacteria to

the beaches and into the ocean water via the numerous storm drains in the County; to avoid body contact with all storm water runoff, and the water at all beaches in Ventura County. Notification is provided to the public via press releases, a dedicated Web site, and a dedicated telephone hotline. This rainfall advisory is effective during significant rainfall activity and for 72 hours after the rainfall has ended.

As stated above the primary purpose of the EHD/OWQMP is to provide timely and accurate information to the public about the bacteriological water quality at public beaches in Ventura County. In addition to the above mentioned signs, public notification is accomplished in a variety of ways. A telephone hotline has been developed which provides information on beaches that are currently posted, closed, restricted, or whether or not a county-wide rainfall advisory is in effect. The hotline is updated by EHD/OWQMP staff upon receipt of sample results data from the laboratory or of other information affecting beaches. A Web site has been developed in order to provide a wide range of ocean water quality information to the public.

The Web site's address is:

[http://www.ventura.org/rma/envhealth/programs/tech\\_serv/ocean/index.html](http://www.ventura.org/rma/envhealth/programs/tech_serv/ocean/index.html)

Beach "posting" and water quality information on the Web site are updated as data are received by OWQMP staff. Other information on the site includes historical logs of postings, site maps and photographs, historical data/sample results, bar graphs showing trends of postings over time, frequently asked questions, an illness report form, links to other sources for ocean water information, and links to any ocean water related press releases that are issued. Press releases are issued, when necessary, after all sampling and re-sampling has been completed for the week. The press release contains a list of any beaches posted, information as to why the beach is posted, and what the public should be aware of and take precautions to avoid.

### **3. Frequency and Location of Monitoring**

As stated in item #1 above, 40 public beach recreation areas are monitored on a weekly basis by the Ventura County EHD/OWQMP from April through October. November through March, the number of monitored/sampled beaches is reduced to a level commensurate with available funding. Currently, 19 beaches are monitored during this time period.

Sampling locations for Ventura County's 42-mile coastline are determined by the many popular surfing spots in addition to the large number of storm drain outfalls on the coast. Detailed maps locating the 40 sites are provided in Attachment #5.

#### **4. Water Quality Testing Methods**

All ocean water samples and re-samples collected by the EHD/OWQMP are delivered to the County of Ventura Public Health Laboratory for bacterial analyses. (Attachment #6) The lab is certified by the Environmental Laboratory Accreditation Program, California Department of Health Services. Analysis methods utilized are "Enterolert" and "Colilert" which allows the lab to provide results to the EHD/OWQMP within 24-hours. As soon as the lab results are available, they are faxed or emailed directly to the EHD/OWQMP for data analysis and status of ocean water quality at the beaches. It is a continuing responsibility of EHD/OWQMP staff to review and interpret sample result data for any failure of State bacterial standards. Staff also looks for any indication of changes with respect to ocean water quality trends over time, whether they are improvements or degradations.

#### **5. Communication**

Providing the public with accurate and timely information on ocean water quality is the primary reason for the development implementation of the EHD/OWQMP. In this way the public have the necessary tools so that they may make informed decisions as to which County beaches they will visit and enjoy. As previously stated, communication of ocean water quality information is done in a variety of ways: posting of warning and advisory signs on beaches that fail a bacteria standard; telephone hotline; Web site; and press releases. The Web site:

[http://www.ventura.org/rma/envhealth/programs/tech\\_serv/ocean/index.html](http://www.ventura.org/rma/envhealth/programs/tech_serv/ocean/index.html)

was completely developed in-house by County staff, and receives about 250 visits each week. Press releases are sent by FAX or email to a wide range of recipients who have either a direct responsibility for ocean water beaches or who have a "need to know" about ocean water issues, including State and County Parks agencies, cities, public works agencies, regional water boards, National Parks Service, other counties, lifeguards, US Navy, environmental advocacy groups, local political leaders, and local media.

For general public information, the EHD/OWQMP developed a brochure for distribution. (Attachment #7) Our brochure briefly explains the ocean water monitoring program, provides information on risks associated with body contact with contaminated water, what to do if one becomes ill after visiting the beach, risks associated with storm drain and runoff water, program contacts, and sources for additional information.

#### **6. Posting and/or Closure**

Posting and/or closure of affected beaches is accomplished through the physical placement of warning/advisory signs at public access points for the contaminated beach. The signs (Attachments #3 & 4) utilized by the Ventura County EHD/OWQMP were developed through a cooperative effort with other southern California counties and cities so that the beach-going public would receive consistent and understandable information along the California coast from Santa Barbara County to the Mexican border. The signs used by the various agencies are similar in appearance with color schemes, written message and size. All signs are in both the English and Spanish languages and contain an international "no swimming" icon/graphic. Beach posting and/or closure information is also made available to the public on our Web site, telephone hotline, and through press releases.

## **7. Risk Communication**

The EHD/OWQMP takes this responsibility very seriously. We make every reasonable effort to provide accurate and timely information to the public on the risks of body contact with ocean water at recreational beaches that may be contaminated with harmful bacteria. All of our public notification methods, signs, Web site, hotline, press releases, and brochure contain information on the potential health risks associated with contaminated beach water contact. Our Web site contains a list of frequently asked questions (Attachment #8) that includes information on health risks, potential pathogens and diseases. Other, non-routine, ways by which we have provided health risk information to the public are through presentations to local organizations, e.g., Rotary Club, school teachers and students, high school job fairs, one-on-one contact with beachgoers, and local radio and television interviews of EHD/OWQMP staff. Staff also responds to phone calls and emails from the public, other government agencies, universities, and research institutions asking questions about local beaches or our program, or requesting ocean water quality monitoring data.

## **8. Water Quality Data and Beach Status Information**

EHD/OWQMP submits weekly beach water monitoring results data directly to the State Water Resources Control Board (SWRCB). This information, submitted electronically, contains the latest information with respect to the beaches in Ventura County that were either posted or closed during the month. Also provided are the reasons for the posting or closure, the length of time of the posting or closure and the physical length of beach affected.

## **9. Supplemental Environmental Project (SEP)**

The County of Ventura OWQMP is listed by the Los Angeles Regional Water Quality Control Board as a Supplemental Environmental Project. Money received by the OWQMP through this program is used to conduct year round ocean water monitoring activities that include bacteriological water quality testing, facilitating study of these waters through maintenance of year-round database integrity, and enhancing beneficial use of these waters by facilitating safe public recreational use. Specific examples of these benefits include:

1. Monitor County beaches during winter months when bacterial levels are historically the highest as a result of storm water runoff.
2. Enhances protection of human health during the months when there is heavy usage of the many Ventura County surfing beaches receiving excellent wave conditions from Pacific Ocean storms.
3. Provides continuity in weekly data collection at ocean beach monitoring locations that has been ongoing since the OWWMP began over 10 years ago.
4. Enables OWQMP to continue to provide beach ocean water quality data to other agencies and entities for public notification and information such as, the State of California, USEPA, Natural Resources Defense Council, Heal the Bay, and Surfrider Foundation.
5. Enable cities and sanitation agencies with ocean water quality monitoring requirements in their NPDES permit to use OWQMP water quality data in complying with their permit requirements and assessing impacts of waste water treatment facility effluent on local beaches and ocean waters.
6. Facilitates proactive identification of "problem" beaches manifesting consistent, periodic, or episodic high bacteriological levels, thus enabling resources to be focused on development of appropriate mitigation measures to improve ocean water quality.
7. Enables continued participation by OWQMP personnel in scientific ocean water studies of the Southern California Bight in association with the Southern California Coastal Water Research Project (SCCWRP); and the Beach Water Quality Workgroup (BWQW) chaired by personnel from the State Water Resources Control Board.

## **Attachment 1**

### **List of Ventura County Ocean Water Sampling Locations**



County of Ventura  
Environmental Health Division  
**OCEAN WATER QUALITY MONITORING PROGRAM**

*Ocean Water Sampling Locations:*

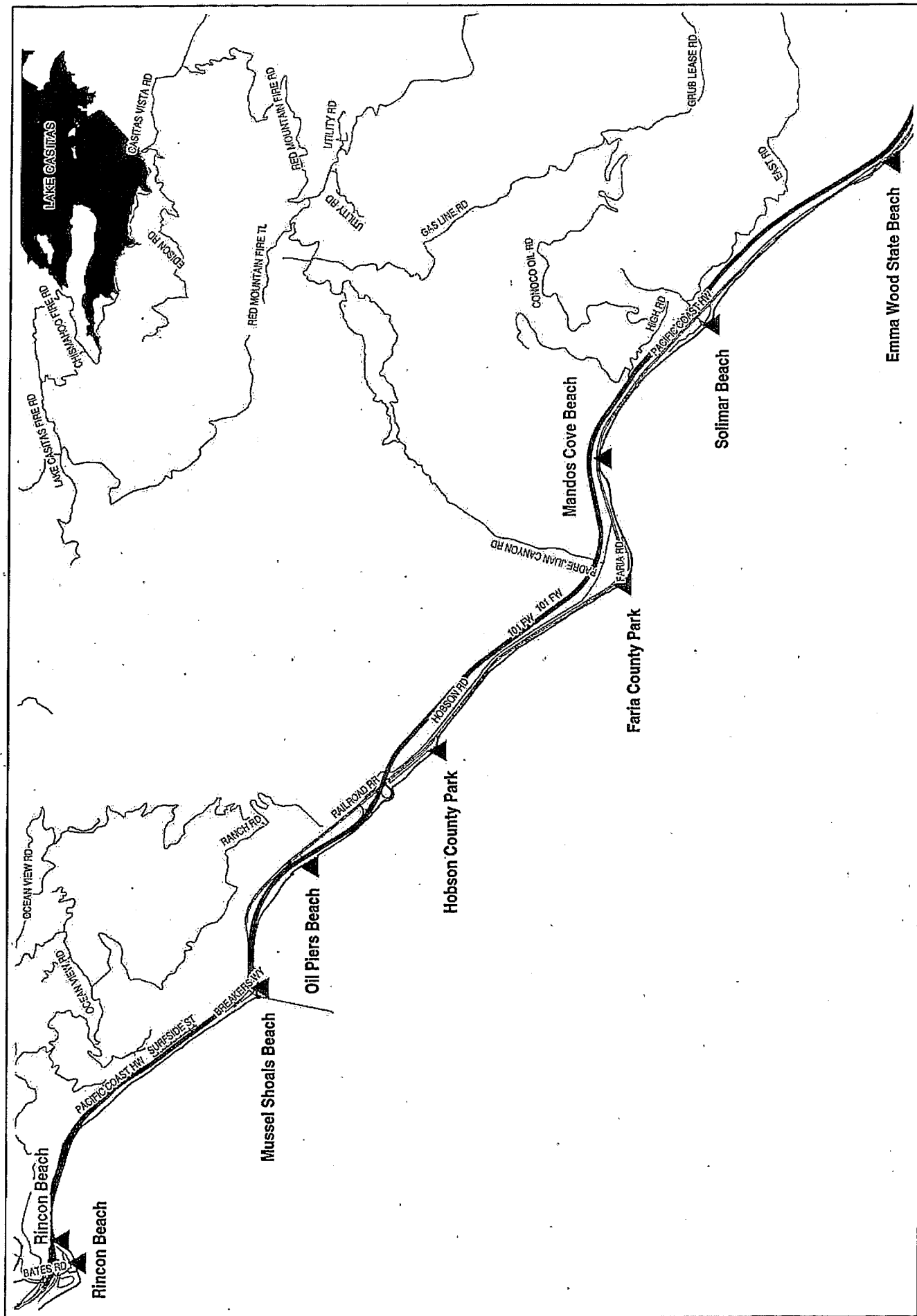
Number:	Name:
1000	Rincon Beach (25 yds. of creek mouth)
1050	Rincon Beach (Flagpole – 100 yds S. of Site #1000)
3000	Mussel Shoals Beach (100 yds. S. of pier)
4000	Oil Piers Beach (Bottom of the staircase)
5000	Hobson County Park (Bottom of stairs to beach)
7000	Faria County Park (25 yds. S. of drain at N. end of park)
8000	Mandos Cove Beach (25 yds. S. of drain)
10000	Solimar Beach (End of E. gate access rd.)
11000	Emma Wood State Beach (25 yds S. of first drain outfall)
13000	Surfer's Point at Seaside (End of access gate through wooden fence)
14000	Promenade Park (25 yds. S. of drain, Figueroa St.)

15000	Promenade Park (25 yds. S. of drain, across from Redwood Apts.)
17000	Promenade Park (25 yds. S. of drain, across from Holiday Inn)
18000	San Buenaventura Beach (25 yds. S. of drain, Kalorama St.)
19000	San Buenaventura Beach (25 yds. S. of drain, San Jon Rd.)
20000	San Buenaventura Beach (25 yds S. of drain, Dover Lane)
21000	San Buenaventura Beach (25 yds. S. of drain, Weymouth Lane)
22000	Marina Park Beach (At the N. end of the playground)
23000	Peninsula Beach/Harbor Cove (Children's beach area, N. end of Spinnaker Dr.)
25000	Surfer's Knoll Beach (Straight out from parking lot)
29000	Oxnard Beach (25 yds. S. of drain, 5 <sup>th</sup> St)
30000	Oxnard Beach (25 yds. S. of drain, Outrigger Way)
32000	Oxnard Beach Park (25 yds. S. of drain, Falkirk Ave.)
33000	Oxnard Beach Park (25 yds. S. of drain, Starfish Dr.)
34000	Hollywood Beach (La Crescenta St.)
35000	Hollywood Beach (Los Robles St.)

36000	Hobie Beach (Channel Islands Harbor, Victoria Ave.)
37000	Channel Islands Beach Park / Kiddie Beach (Channel Islands Harbor, Victoria Ave.)
38000	Silverstrand Beach (25 yds. S. of jetty, San Nicolas Ave.)
39000	Silverstrand Beach (25 yds. S. of drain, Santa Paula Ave.)
40000	Silverstrand Beach (25 yds. S. of drain, Sawtelle Ave.)
41000	Port Hueneme Beach Park (50 yds. N. of pier)
42000	Ormond Beach (25 yds S. of "J" St. Drain)
43000	Ormond Beach (25 yds S. of Oxnard Industrial Drain)
44000	Ormond Beach (Arnold Rd.)
45000	Point Mugu Beach (Adjacent to parking lot entrance)
46000	Thornhill Broome Beach (Adjacent to the ranger station)
47000	Sycamore Cove Beach (25 yds. S. of creek mouth)
49000	County Line Beach (25 yds. S. of creek mouth)
50000	Staircase Beach (Bottom of "staircase")

## Attachment 2

### Regional Maps of Sampling Locations

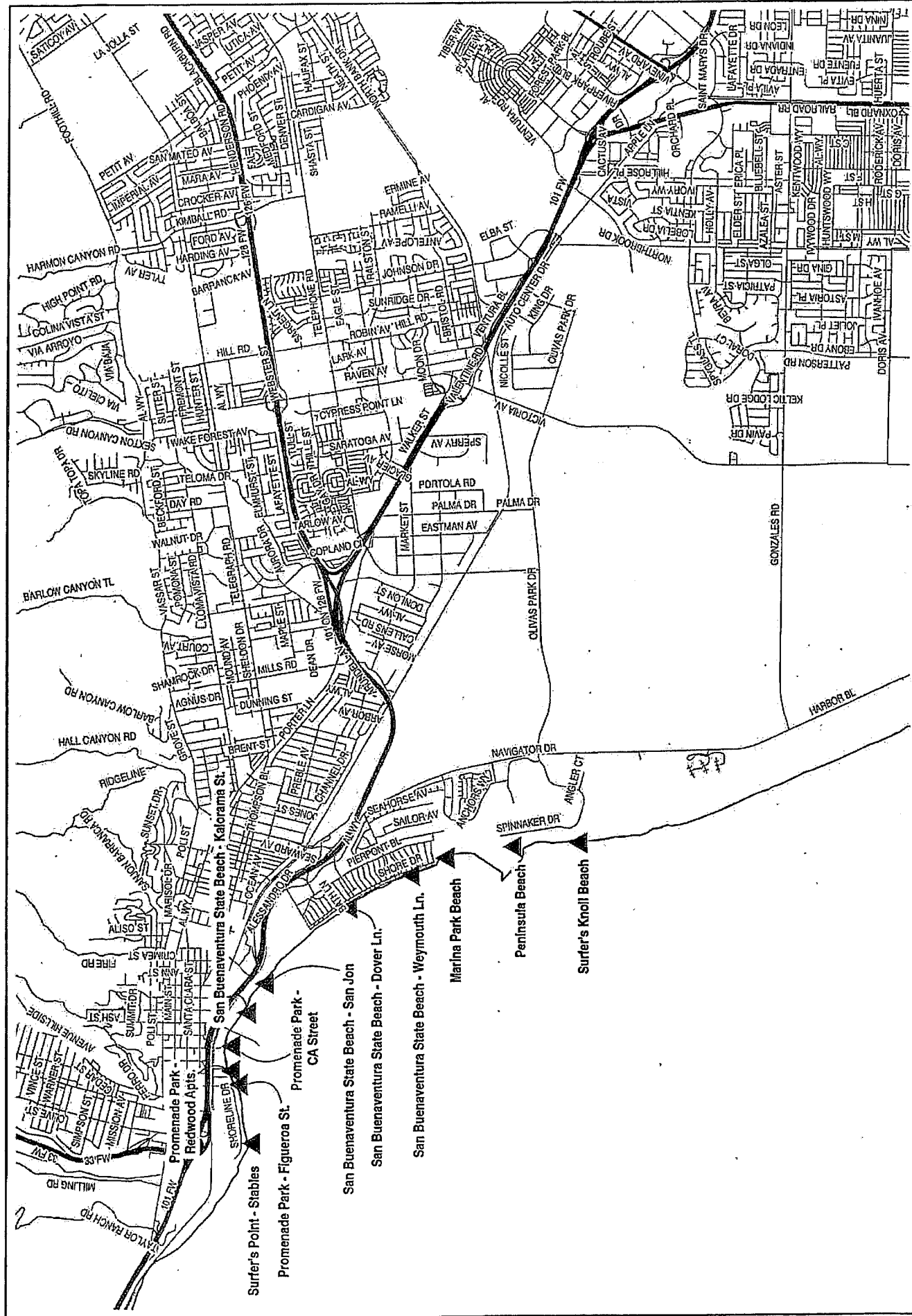


Ventura County  
Resource Management Agency  
Information Systems  
Date Printed: 12/7/2010



# **OCEAN WATER QUALITY MONITORING LOCATIONS** Environmental Health Division North Coast Region

0 4,700 9,400 Feet  
Disclaimer: this map was created by the Ventura County Resource Management Agency, Mapping Services. The County does not warrant the accuracy of this map and no decision involving a risk of economic loss or physical injury should be made in reliance thereon.



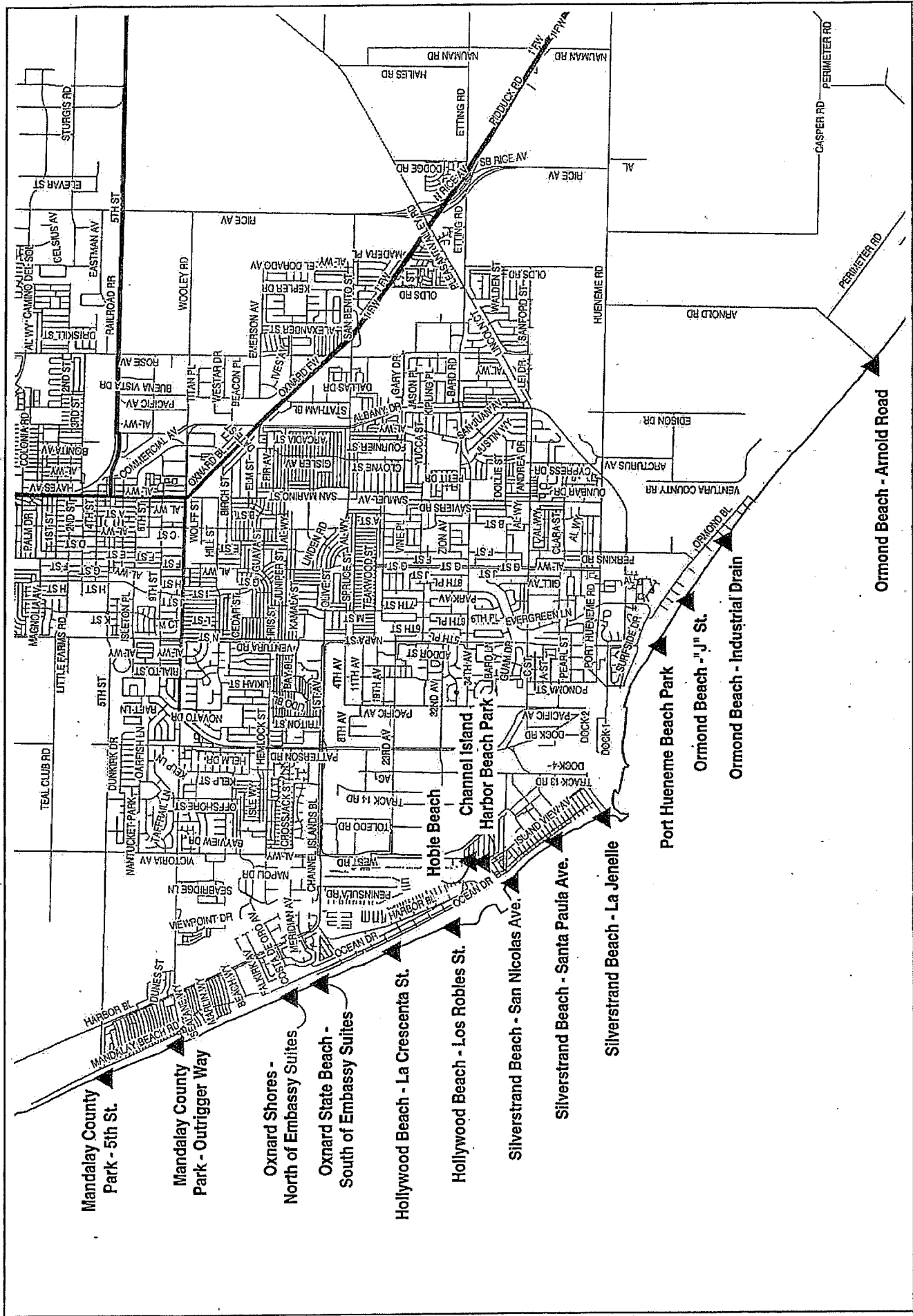
# OCEAN WATER QUALITY MONITORING LOCATIONS Environmental Health Division Ventura Region

Ventura County  
Resource Management Agency  
Information Systems  
Date Printed: 12/12/2010



Disclaimer: This map was created by the Ventura County Resource Management Agency, Mapping Services - GIS, which is designed to provide information for public use. The County does not warrant the accuracy of this map and no decision involving a risk of economic loss or physical injury should be made in reliance thereon.

0 4,600 9,200 Feet







## Attachment 3

### Bacteria Warning Sign

# **WARNING**

**OCEAN WATER CONTACT MAY  
CAUSE ILLNESS  
BACTERIA LEVELS EXCEED  
HEALTH STANDARDS**



## **¡ AVISO !**

**EL CONTACTO CON AGUA DEL  
OCEANO PUEDE CAUSAR  
ENFERMEDADES**

**LOS NIVELES DE BACTERIAS  
EXCEDEN LOS APROBADOS  
DE SALUD**



**VENTURA COUNTY ENVIRONMENTAL HEALTH DIVISION  
FOR RECORDED INFORMATION UPDATES, CALL 805 / 662- 6555  
WEBSITE: [WWW.VENTURA.ORG/ENV\\_HLTH/ENV.HTM](http://WWW.VENTURA.ORG/ENV_HLTH/ENV.HTM)**

## **Attachment 4**

### **Sewage Contamination Warning Sign**

# **KEEP OUT**



## **SEWAGE CONTAMINATED WATER**

## **OCEAN WATER MAY CAUSE ILLNESS**



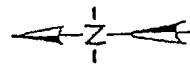
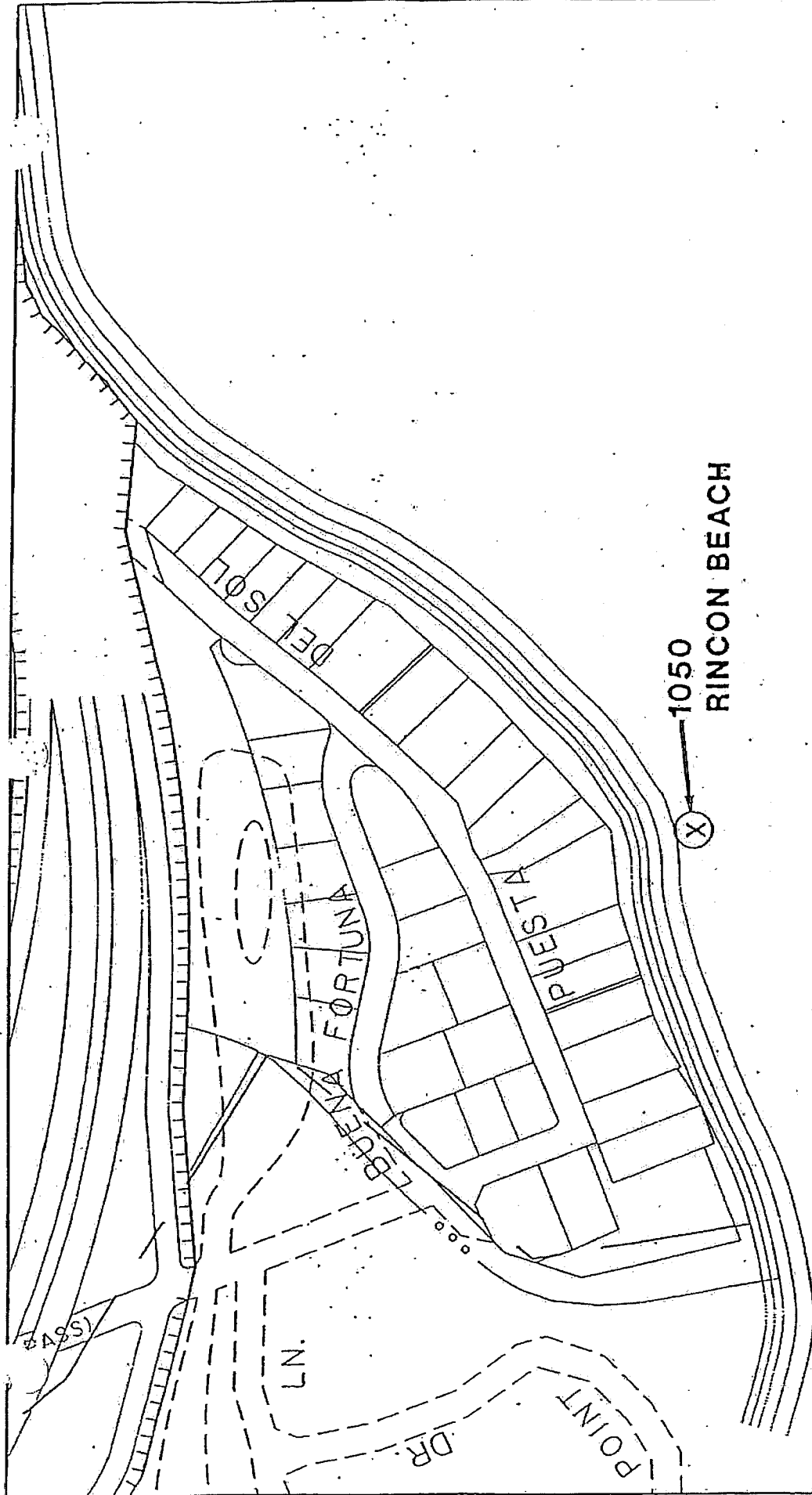
BY ORDER OF THE VENTURA COUNTY  
ENVIRONMENTAL HEALTH DIVISION

FOR RECORDED INFORMATION UPDATES, CALL 805 / 662-6555  
WEBSITE: [WWW.VENTURA.ORG/ENV\\_HLTH/ENV.HTM](http://WWW.VENTURA.ORG/ENV_HLTH/ENV.HTM)

## **Attachment 5**

### **Detail Maps of Ocean Water Monitoring Locations**

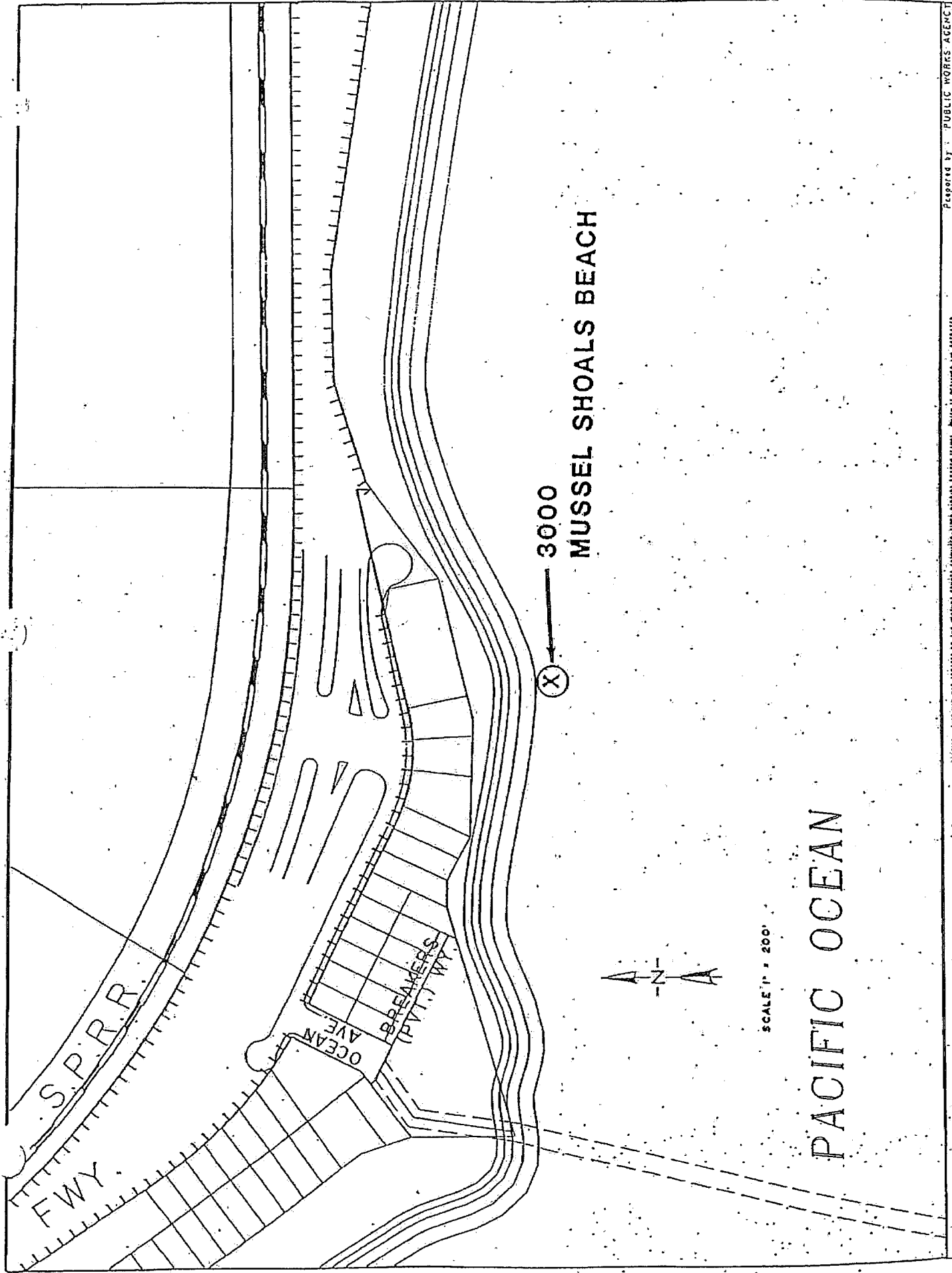




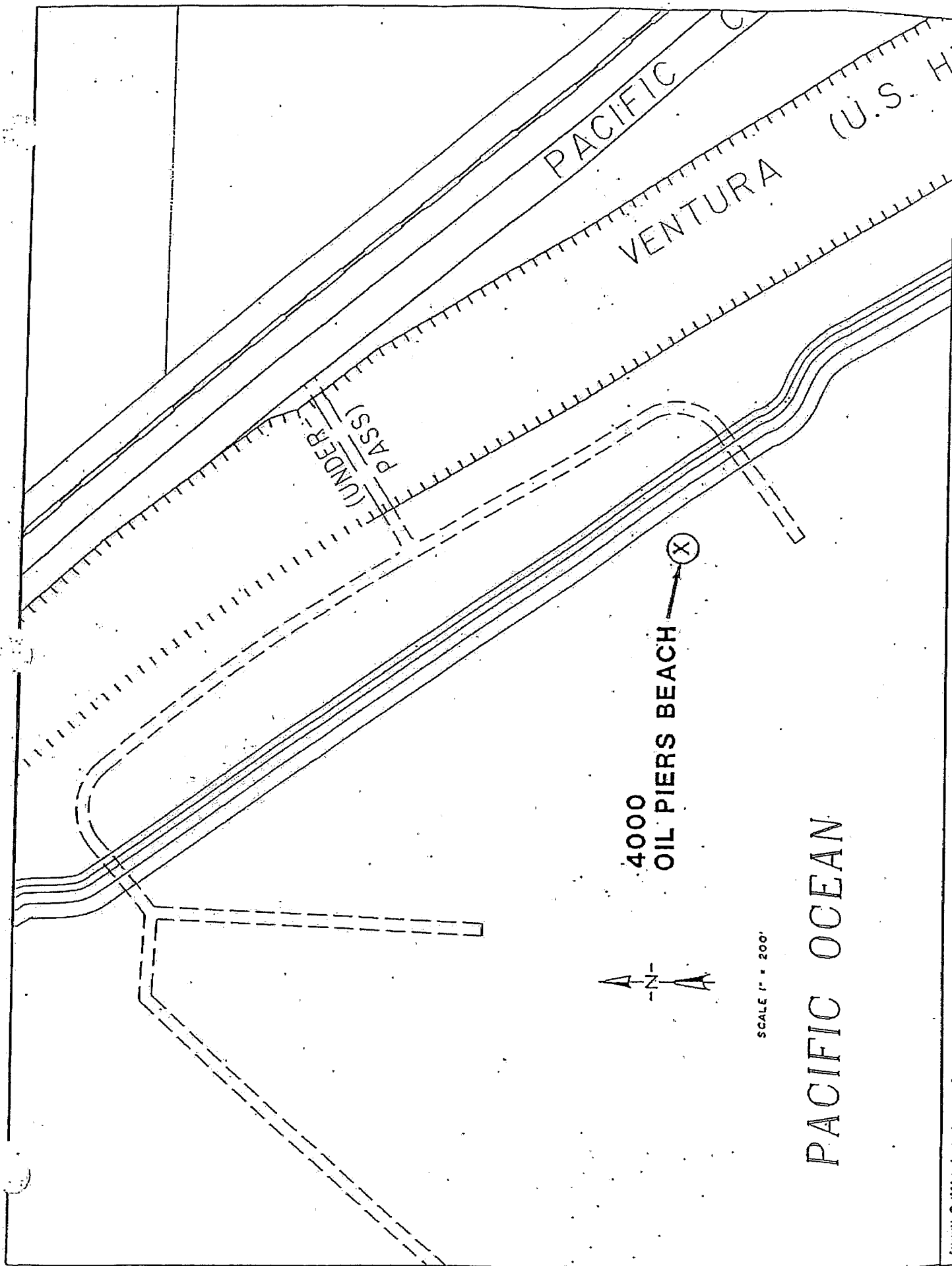
SCALE 1" = 200'

# PACIFIC OCEAN

## RINCON POINT



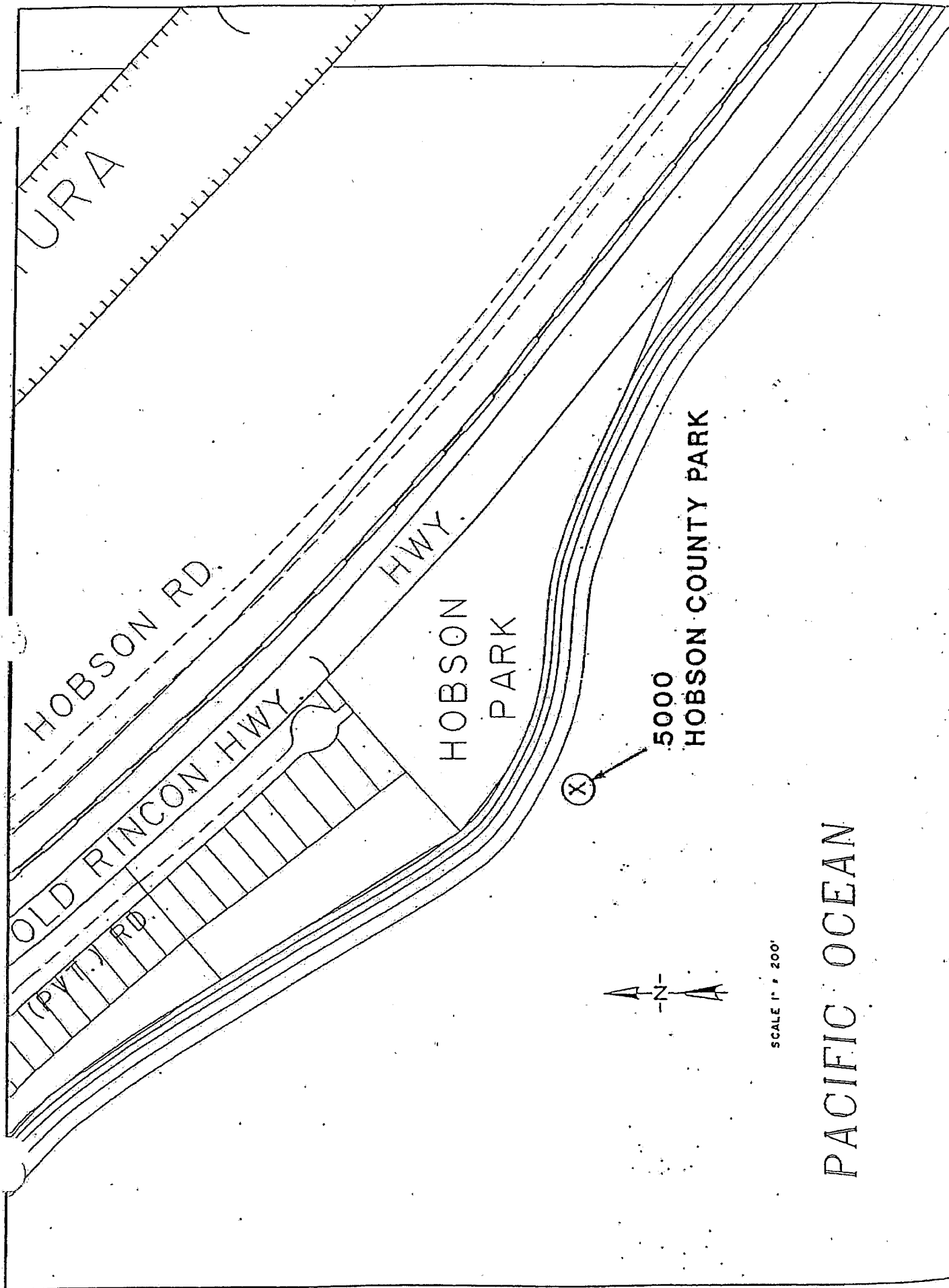




Copyright © 1955 by County of Ventura. Design, map, title and text of this map are copyrighted. It is unlawful to copy or otherwise reproduce in whole or in part, or to use for any purpose not as shown.

Warning: This map was created by the National Ocean Service using satellite imagery, which is collected and processed by the National Ocean Service. The map is not a legal document and should not be used for legal purposes. The map is not a legal document and should not be used for legal purposes.

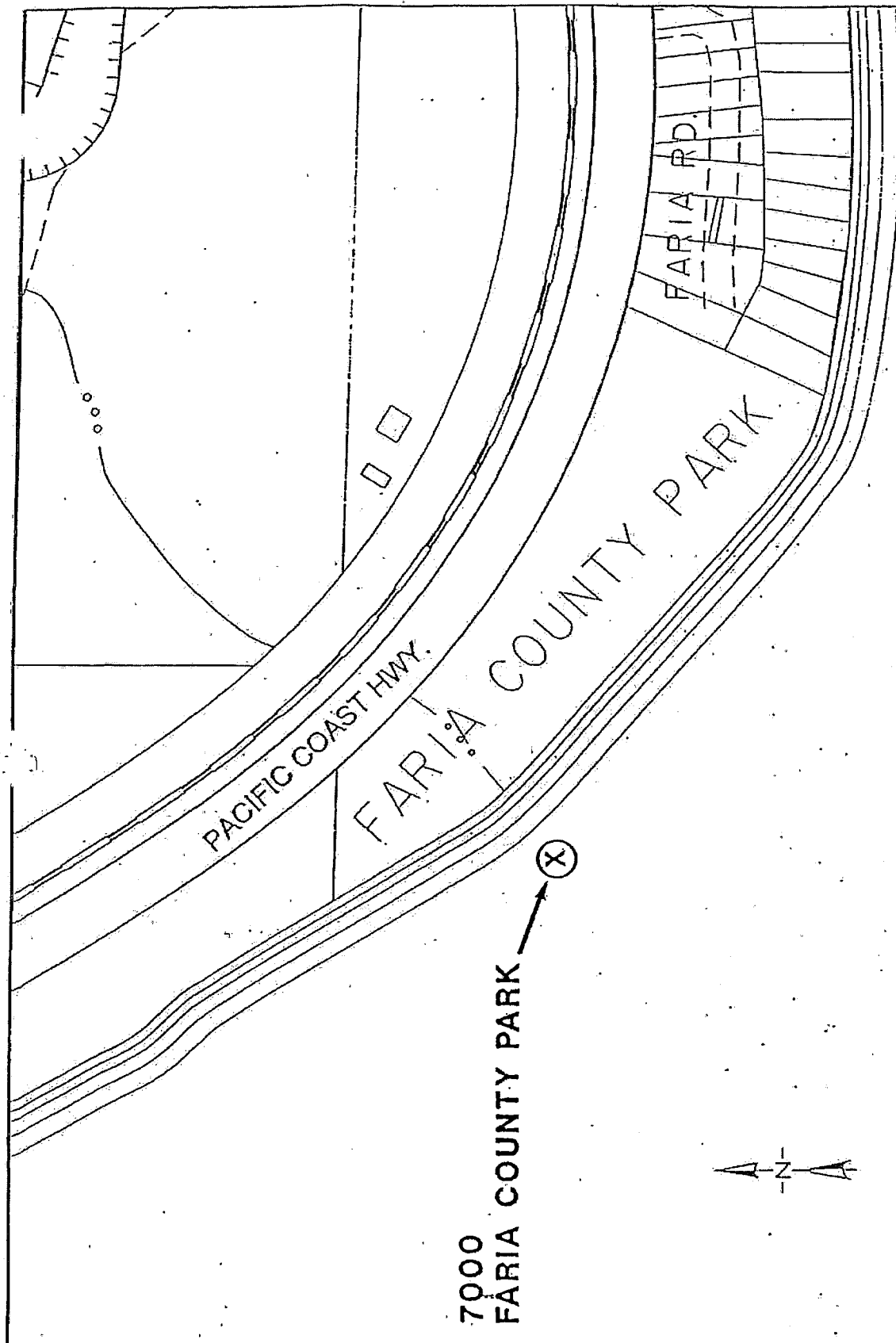
Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
MAPPING DIVISION



Copyright © 1959 by County of Ventura. Design, maps, notes and text of this map are copyrighted. No part of this map may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the County of Ventura. All rights reserved.

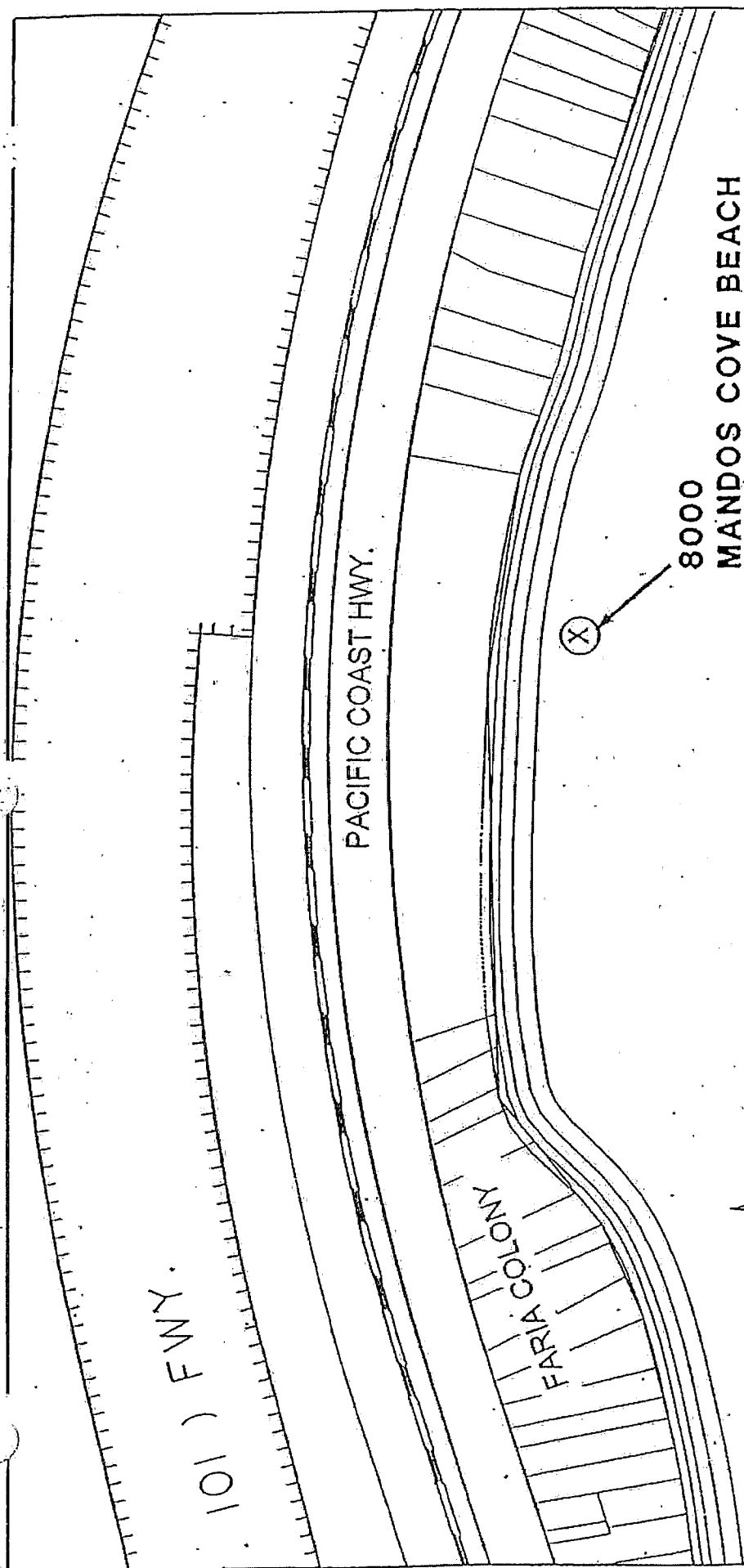
Scale: 1" = 200'

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
MAPPING DIVISION



PACIFIC OCEAN

PITAS POINT

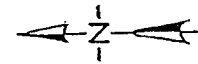


101 ) FWY.

PACIFIC COAST HWY.

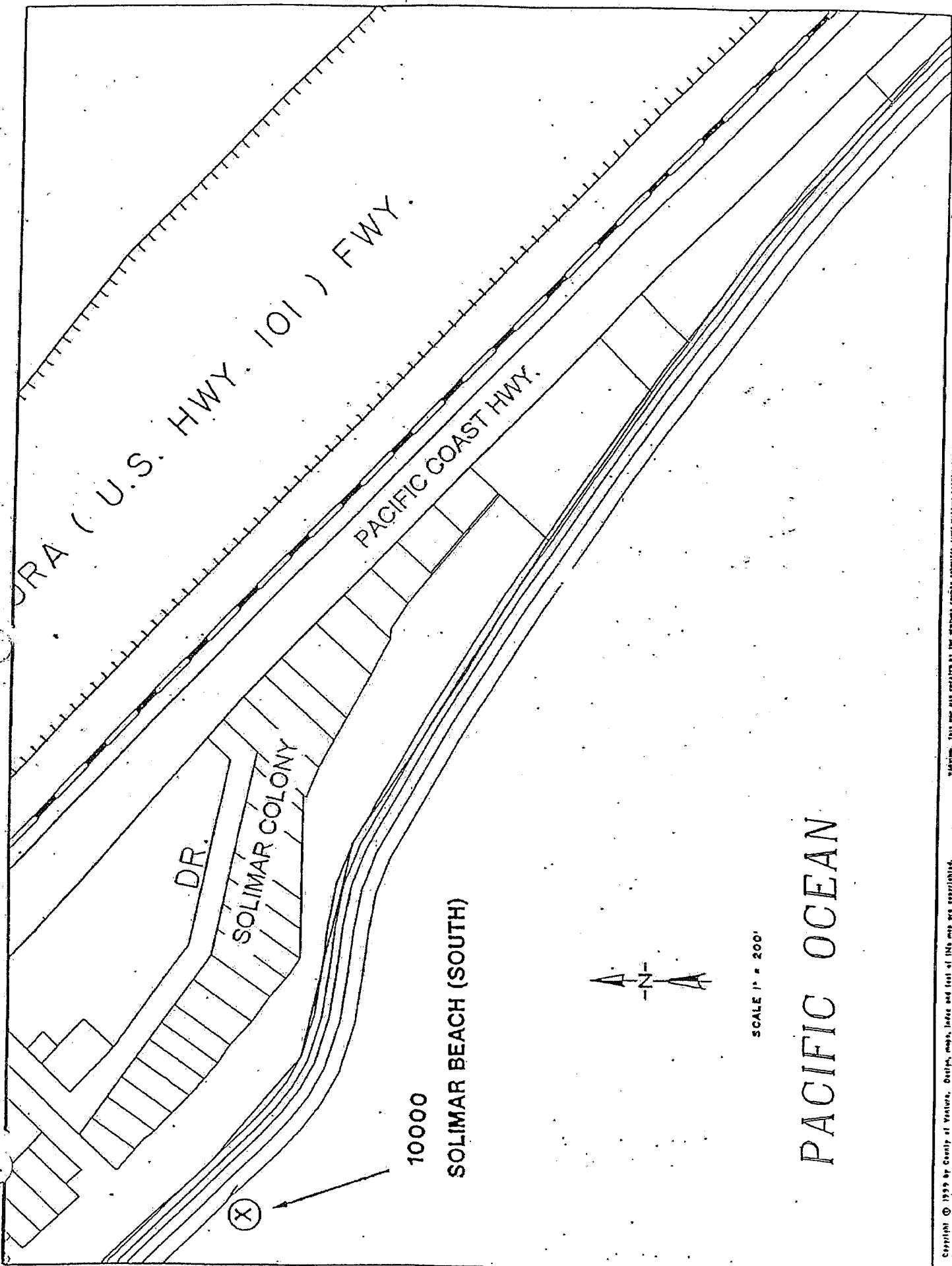
FABIA COLONY

8000  
MANDOS COVE BEACH



SCALE 1" = 200'

PACIFIC OCEAN

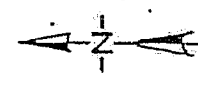


DR. ( U.S. HWY. 101 ) FWY.

SOLIMAR COLONY

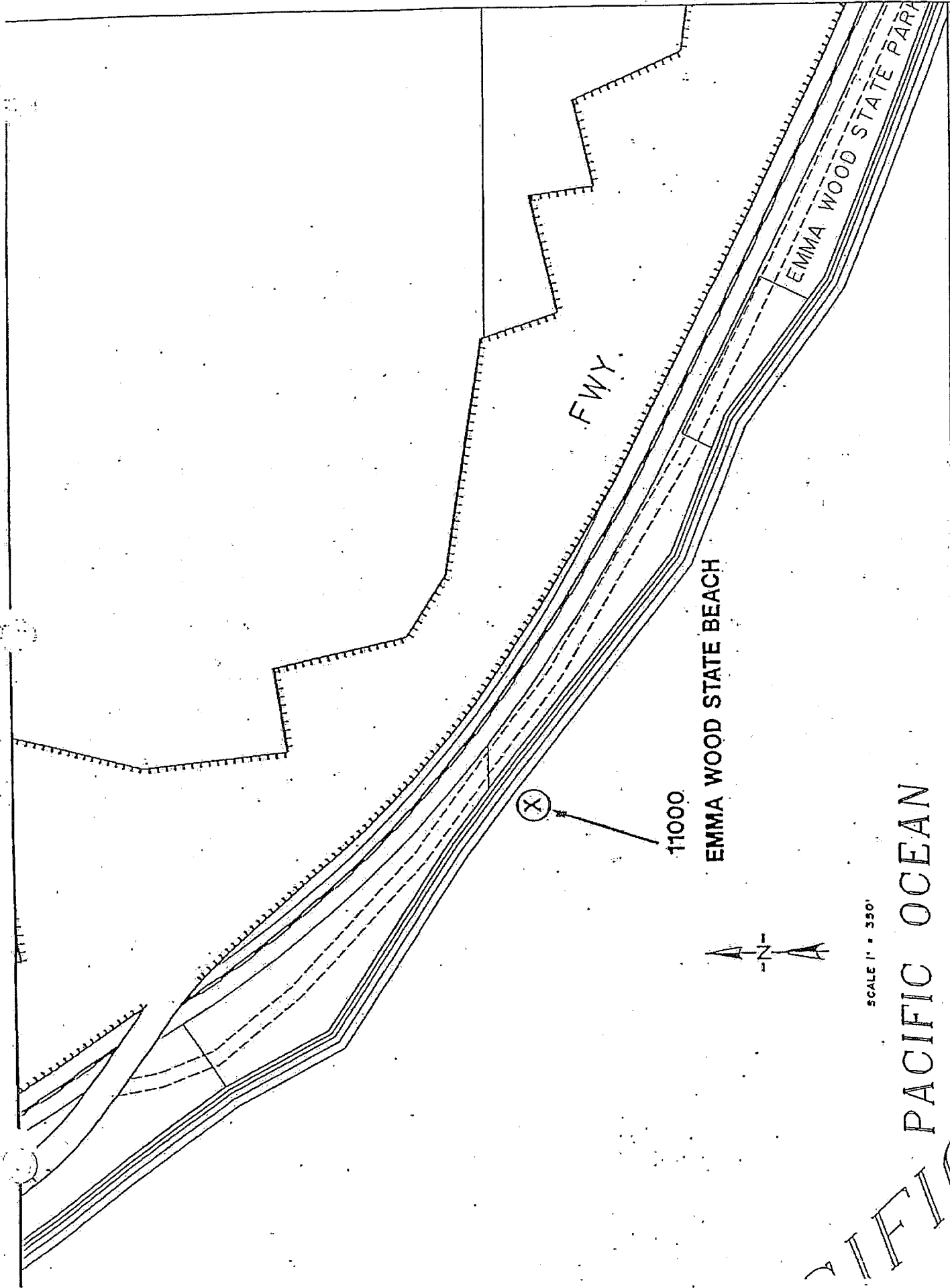
SOLIMAR BEACH (SOUTH)

10000



SCALE 1" = 200'

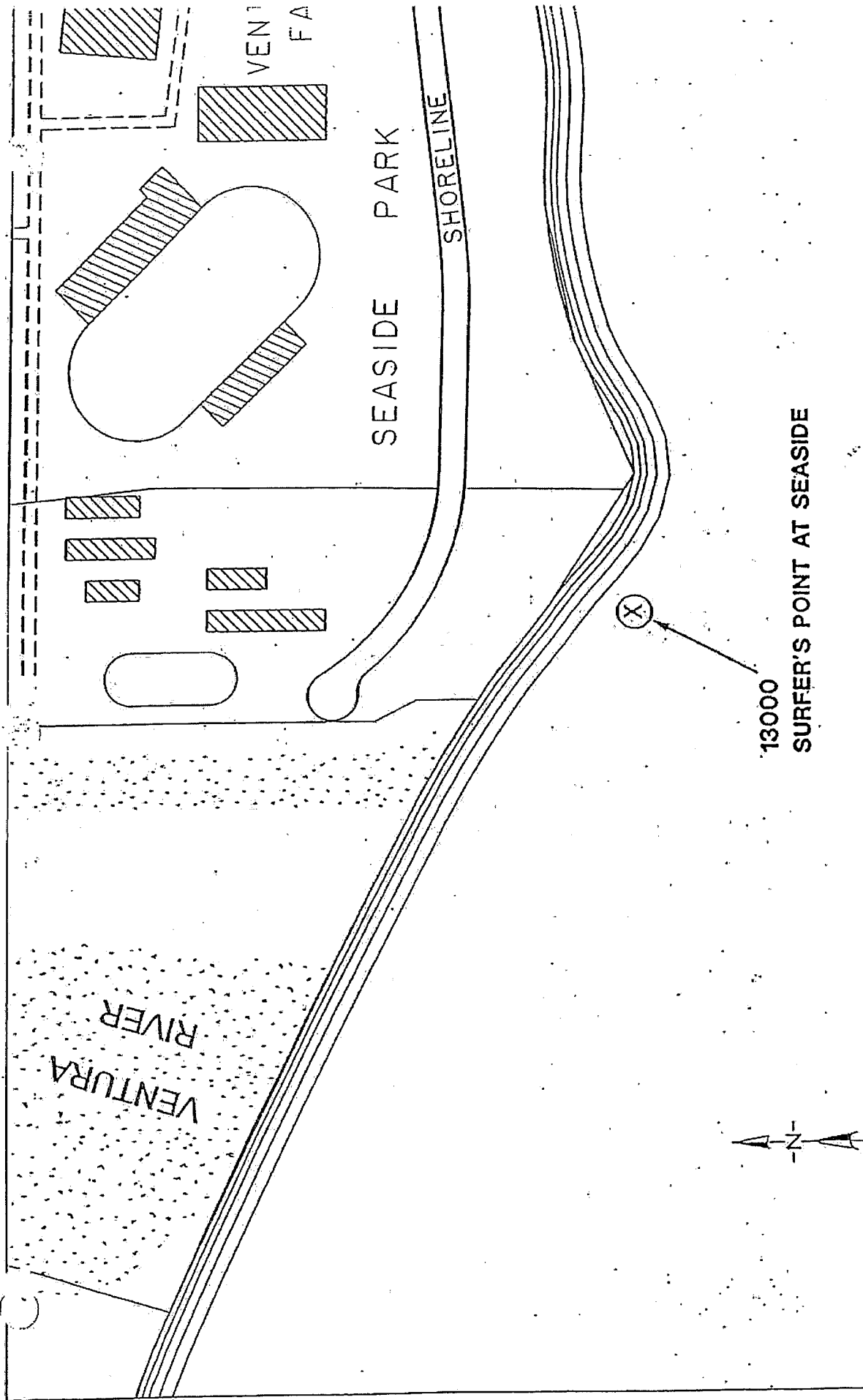
PACIFIC OCEAN



Copyright © 1999 by County of Ventura. Design, maps, labels and text of this map are copyrighted. It is unlawful to copy or reproduce, either in digital or paper form, any part thereof for purposes not as recited.

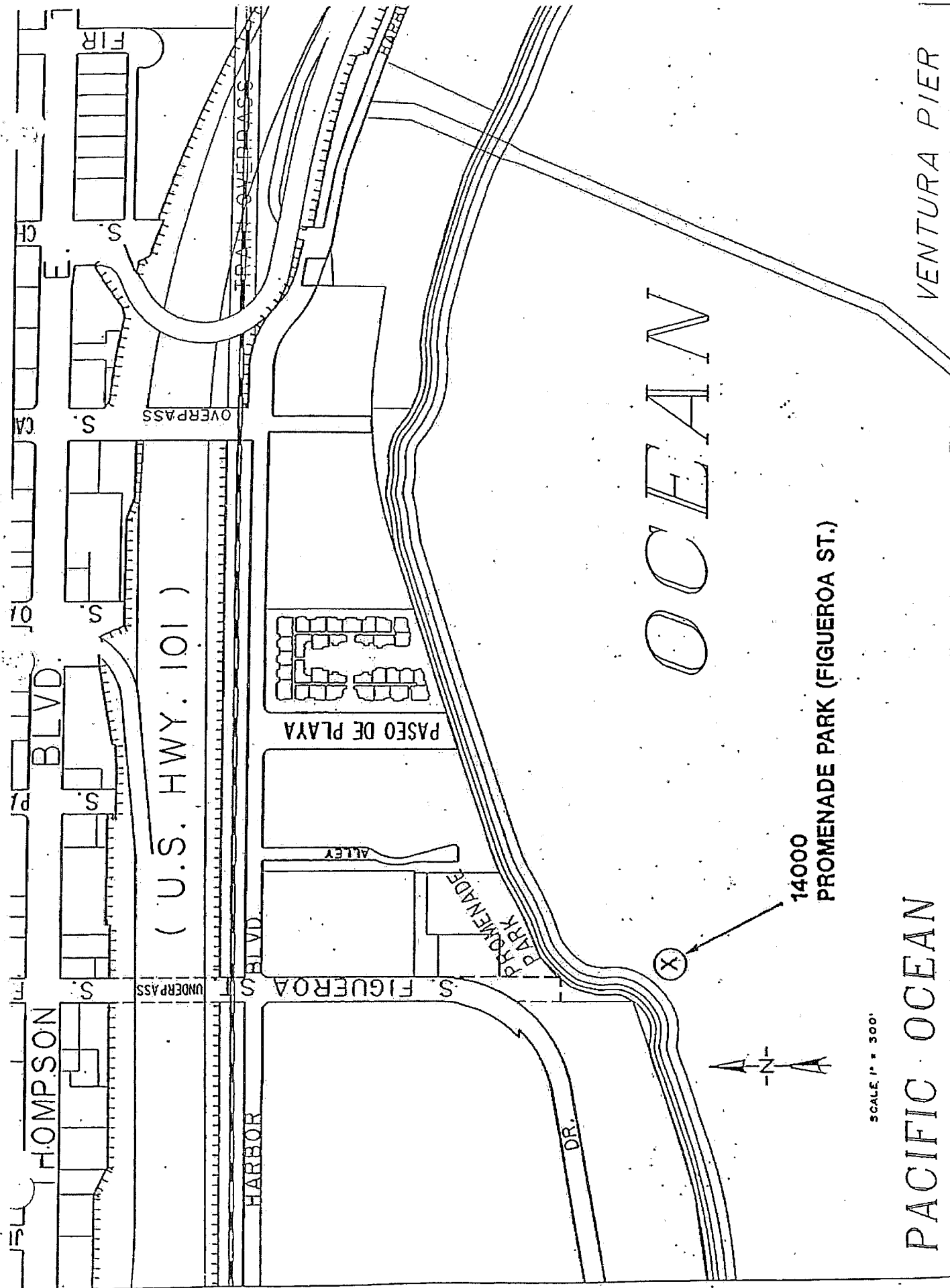
WARNING: This map was derived from the Ventura County Geographic Information System (GIS). While it is believed to be accurate, it is not a substitute for a field survey. The County of Ventura does not warrant the accuracy or completeness of this map and the user assumes all responsibility for its use.

PREPARED BY: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
MAPPING DIVISION



SCALE 1" = 250'

PACIFIC OCEAN



SCALE 1" = 300'

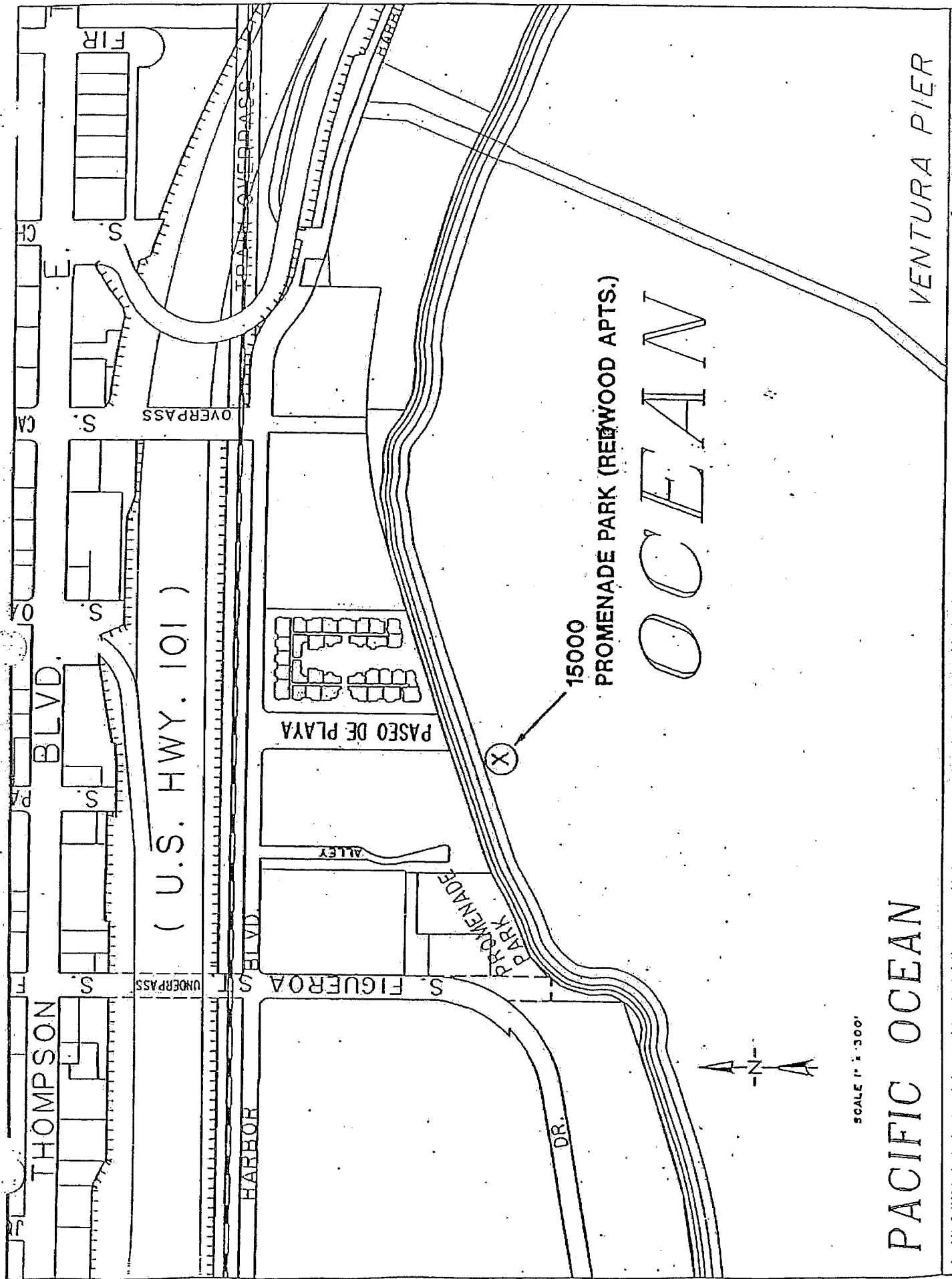
PACIFIC OCEAN

14000  
PROMENADE PARK (FIGUEROA ST.)

OCEAN

VENTURA PIER





SCALE 1" = 300'

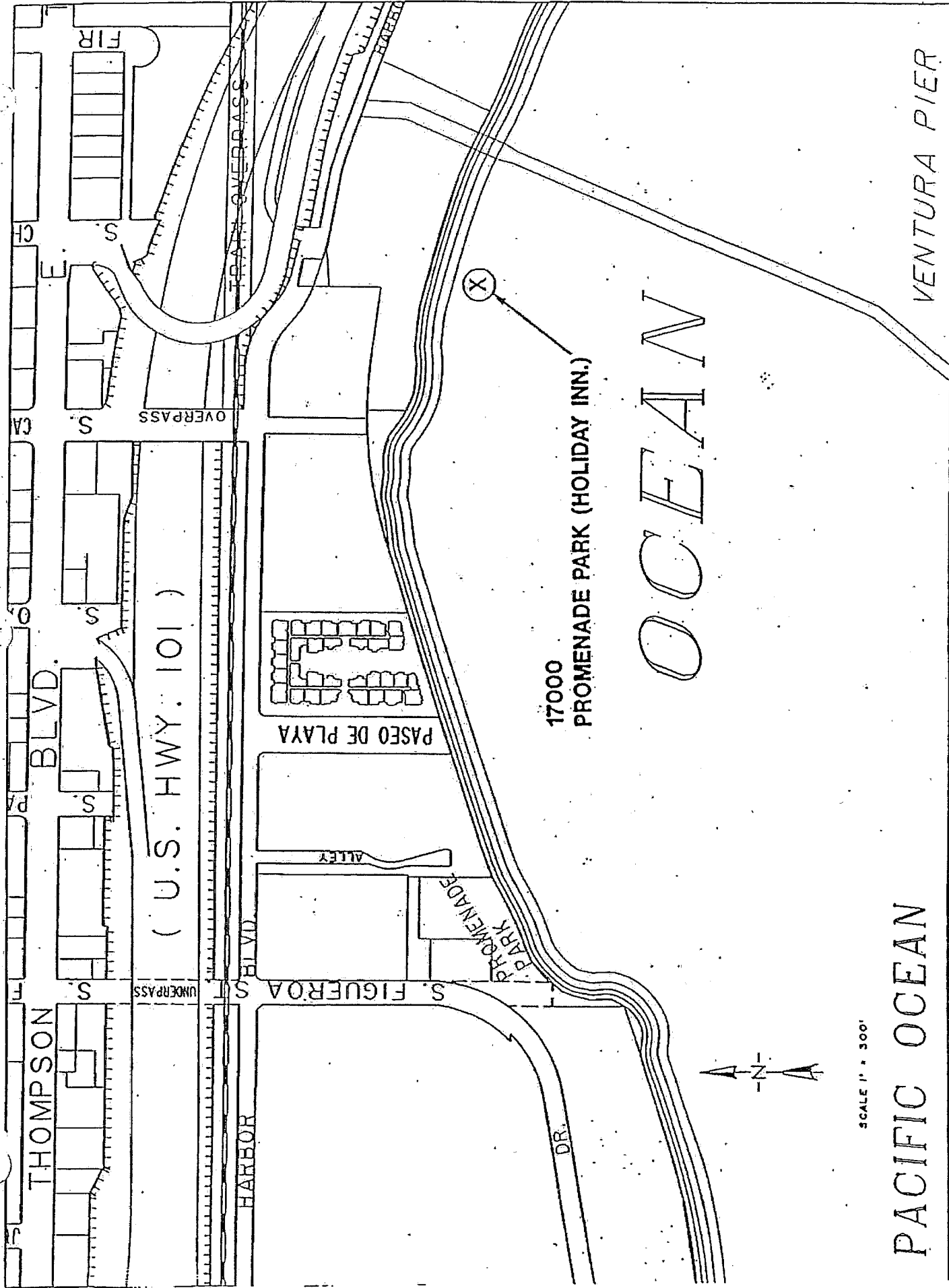
PACIFIC OCEAN

VENTURA PIER

Copyright © 1978 by County of Ventura. Design, maps, index and title of this map are copyrighted. It is unlawful to copy or reproduce, either in whole or in part, without the written consent of the County of Ventura.

Warning: This map was prepared by the County of Ventura using the best available information. It is not a guarantee of accuracy. The County does not warrant the accuracy of the map and no person shall be liable for any damages or losses resulting from the use of this map.

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
MAPPING DIVISION



SCALE 1" = 300'

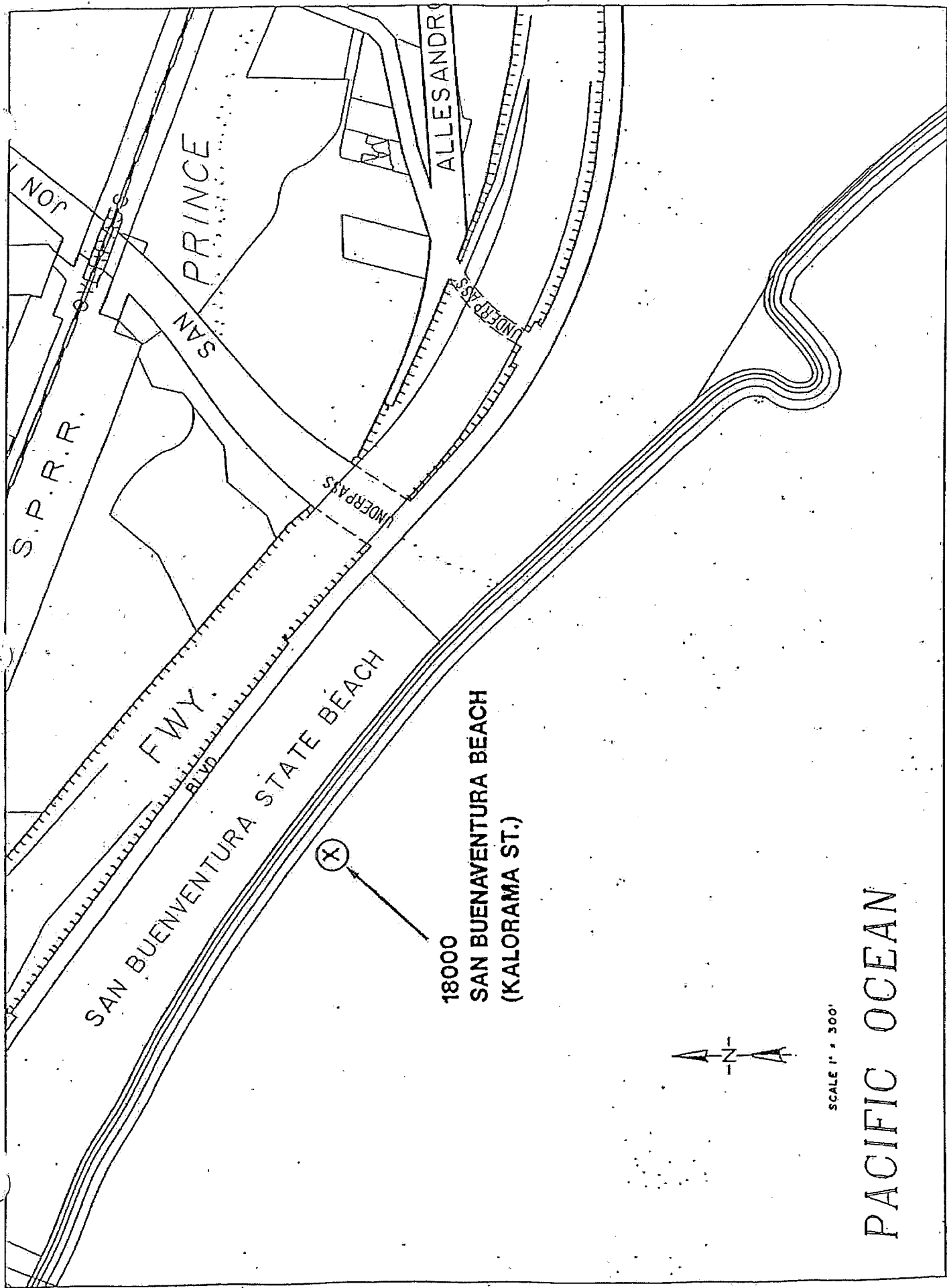
PACIFIC OCEAN

VENTURA PIER

Copyright © 1933 by County of Ventura. Design, maps, notes and text of this map are copyrighted. It is unlawful to copy or reproduce, either in whole or in part, this map for purposes not as stated.

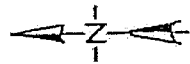
WARNING: This map and its contents are the property of the County of Ventura. It is not to be used for any purpose other than that for which it was prepared. The County does not warrant the accuracy of this map and its contents for any purpose other than that for which it was prepared.

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
VENTURA, CALIFORNIA



PACIFIC OCEAN

SCALE 1" = 300'



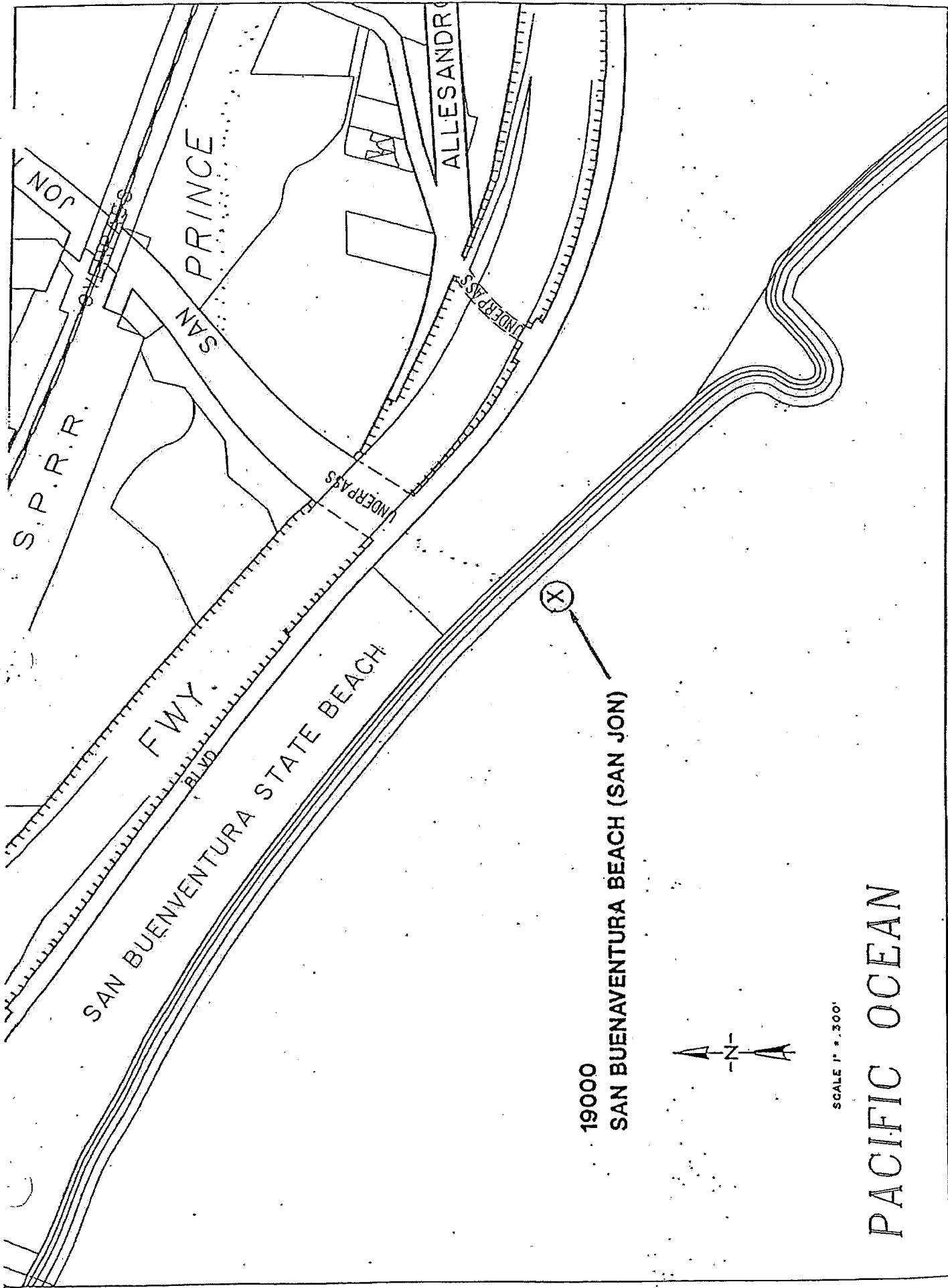
18000  
SAN BUENAVENTURA BEACH  
(KALORAMA ST.)

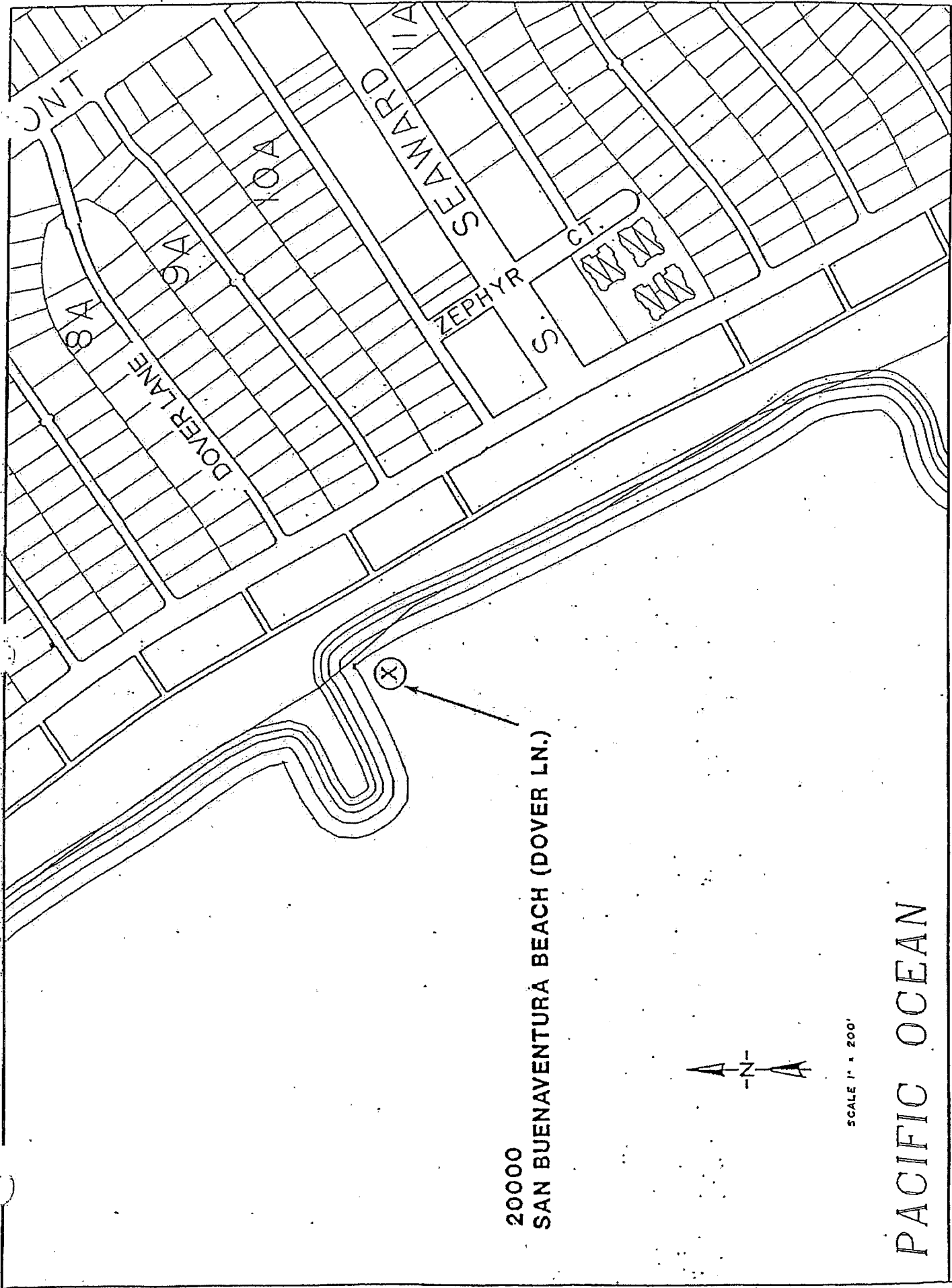


Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA

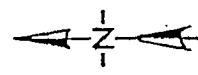
WARNING: THIS MAP WAS PREPARED BY THE VENTURA COUNTY PUBLIC WORKS AGENCY (THE AGENCY) AND DOES NOT WARRANT THE ACCURACY OF THIS MAP. THE AGENCY DOES NOT WARRANT THE ACCURACY OF THIS MAP. THE AGENCY DOES NOT WARRANT THE ACCURACY OF THIS MAP.

Copyright © 1999 by County of Ventura. Design, map, logo and text of this map are copyrighted. It is unlawful to copy or reproduce, either in whole or in part, any part thereof for personal use or resale.





20000  
SAN BUENAVENTURA BEACH (DOVER LN.)



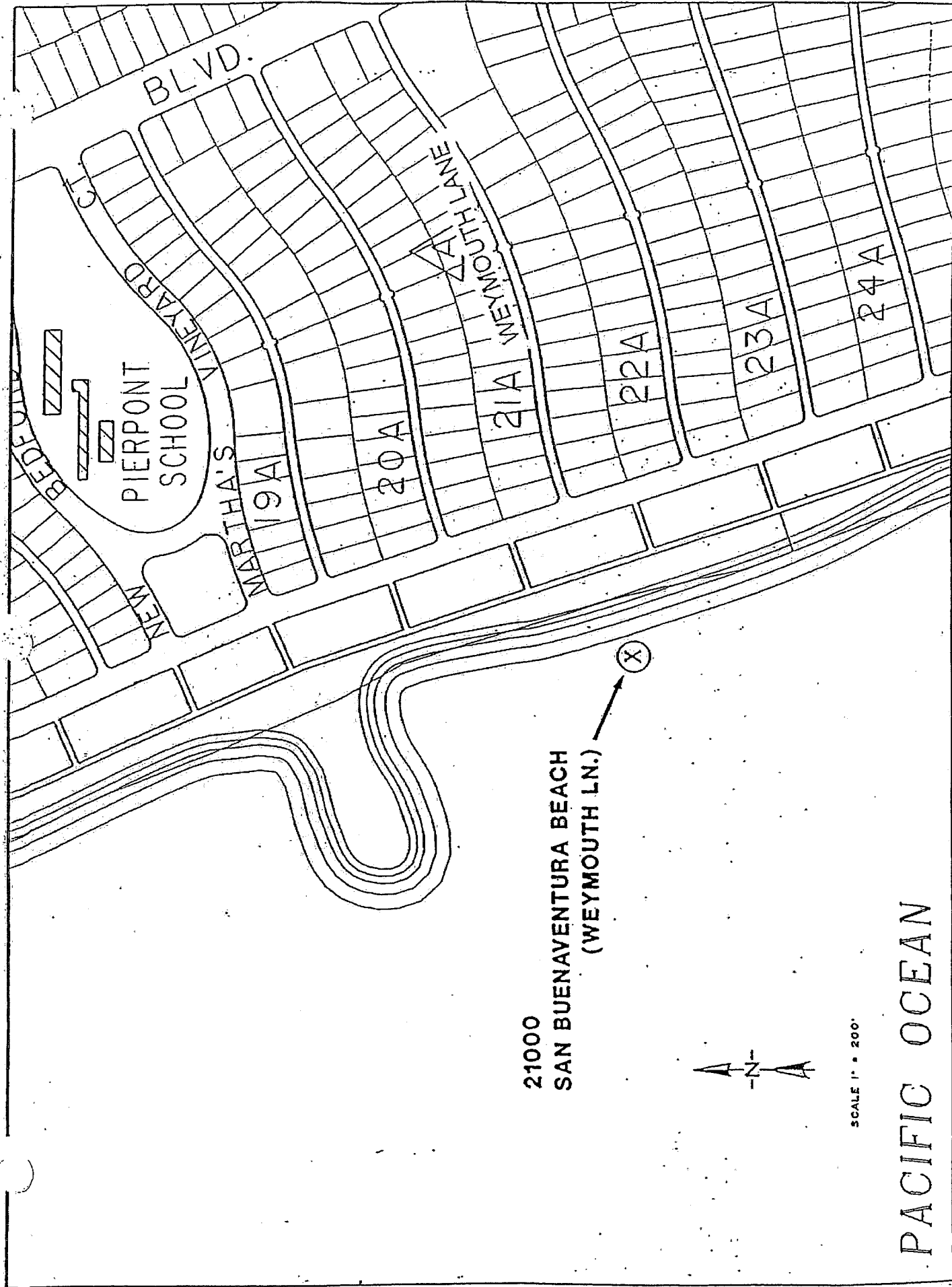
SCALE 1" = 200'

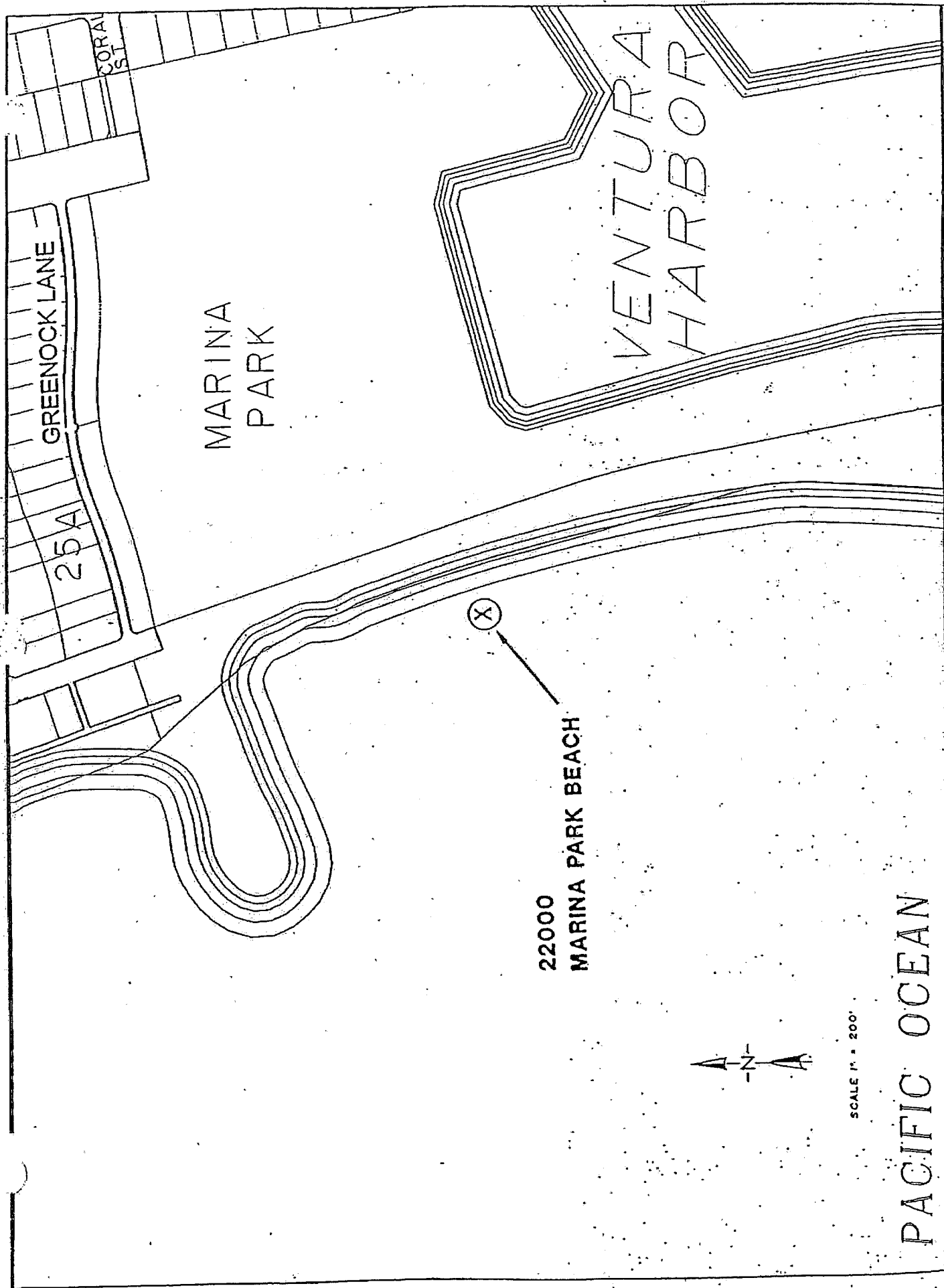
PACIFIC OCEAN

Copyright © 1999 by County of Ventura, Design, map, info and text of this map are copyrighted, it is unlawful to copy or reproduce, either in digital or paper form, any part thereof for present use or resale.

Admission, full and complete submission of mapping system (land, water, etc.) and other data to the County of Ventura, for the purpose of this map, is hereby acknowledged. A full and complete submission of mapping system (land, water, etc.) and other data to the County of Ventura, for the purpose of this map, is hereby acknowledged.

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
MAPPING DIVISION





Copyright © 1999 by County of Ventura. Design, maps, index and text of this map are copyrighted. It is unlawful to copy or reproduce, either in whole or in part, any part thereof for personal use or resale.

Scale: 1" = 200'

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
MAPPING DIVISION



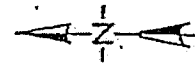


SPINNAKER DR.

"Parking Lot"



25000  
SURFER'S KNOLL BEACH



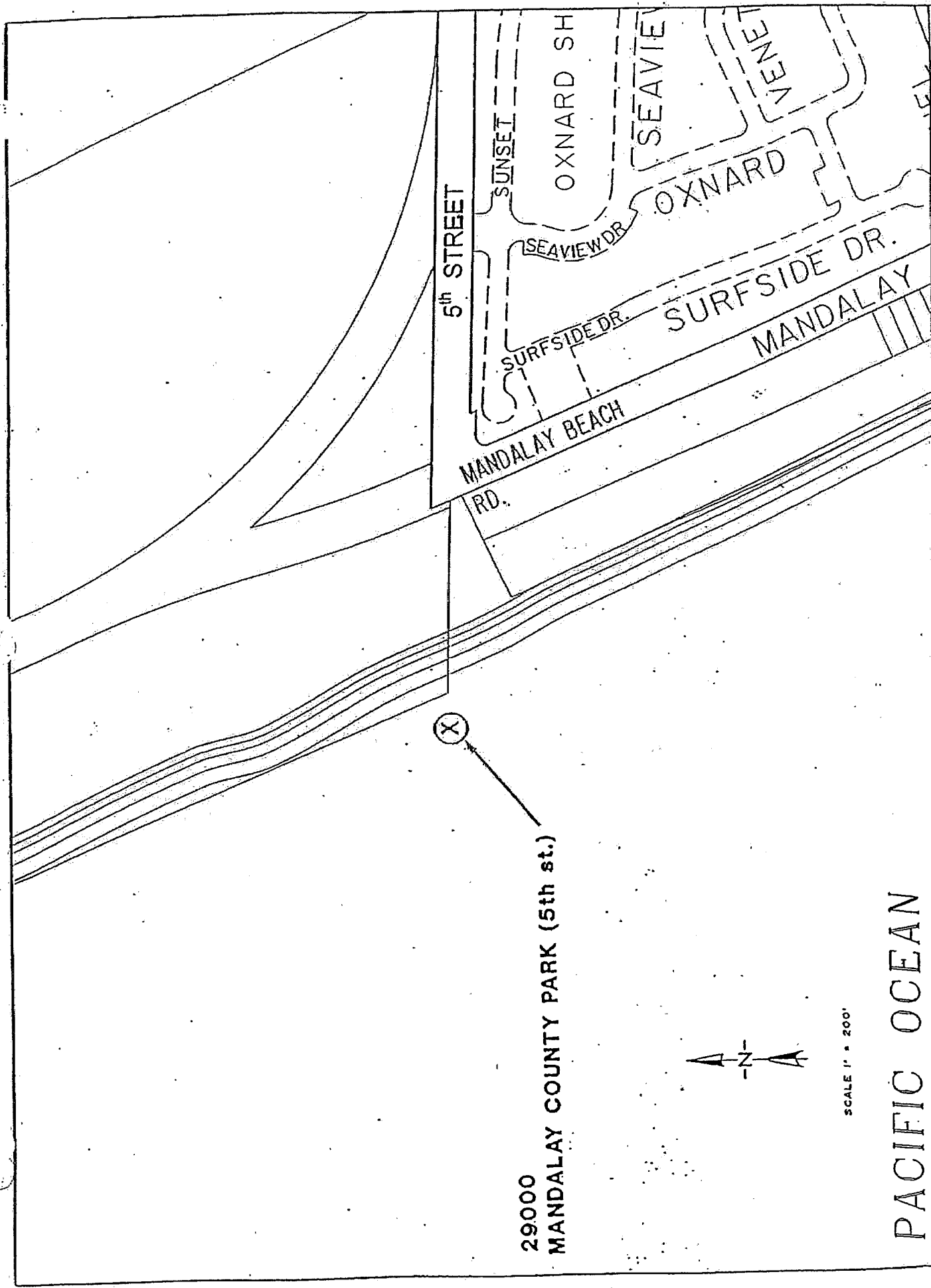
SCALE 1" = 200'

PACIFIC OCEAN

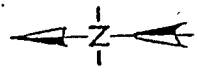
Copyright © 1999 by County of Ventura. Design, maps, labels and text of this map are copyrighted. It is unlawful to copy or reproduce, either in digital or paper form, any part thereof for purposes not intended by the County of Ventura.

Notice: This map was prepared by the County of Ventura, which is not a public agency. The County of Ventura is not responsible for any errors or omissions on this map. The County of Ventura is not responsible for any damages or injuries resulting from the use of this map. The County of Ventura is not responsible for any damages or injuries resulting from the use of this map.

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA



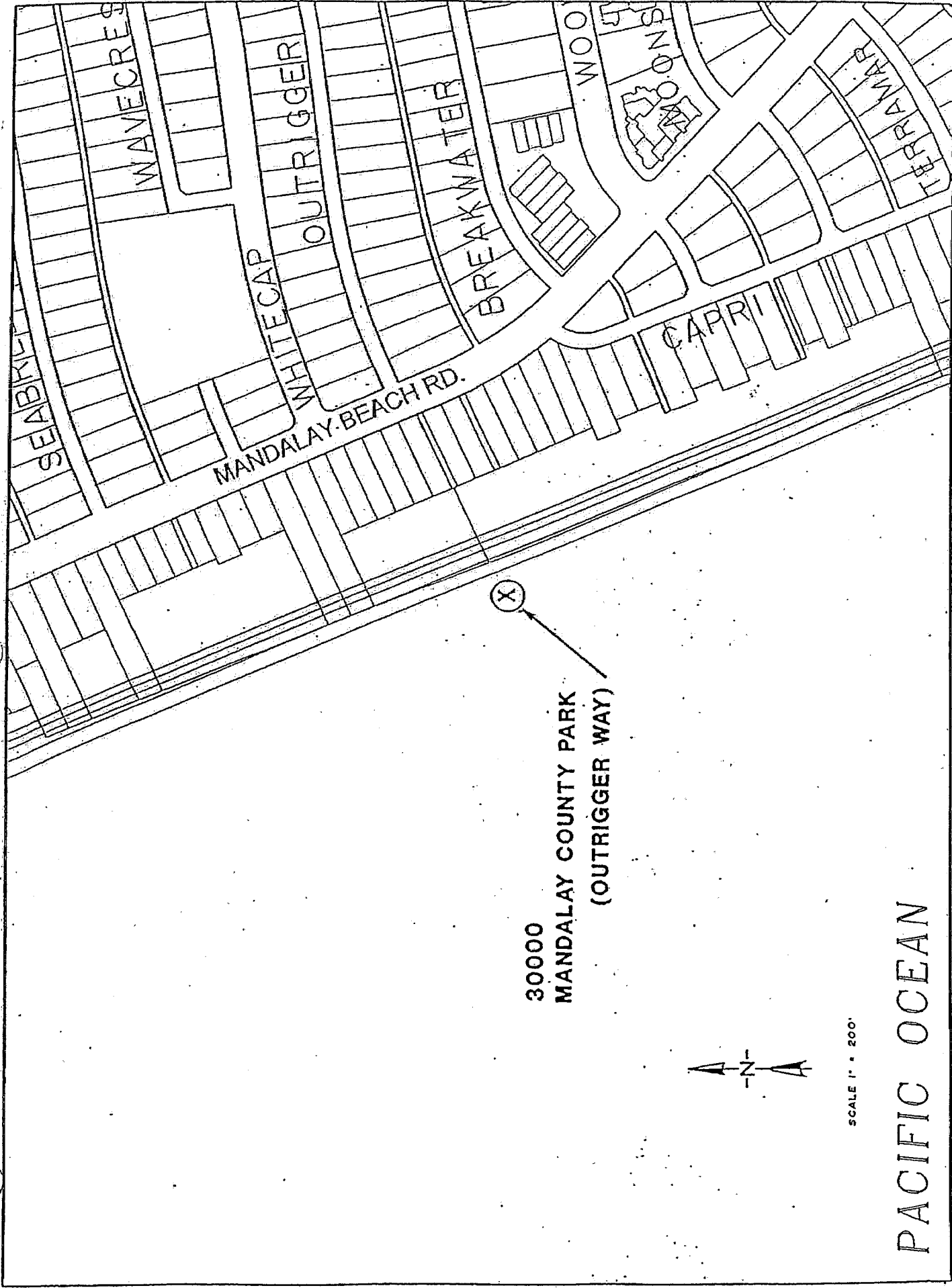
29000  
MANDALAY COUNTY PARK (5th st.)



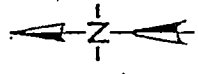
SCALE 1" = 200'

PACIFIC OCEAN

Copyright © 1999 by County of Ventura. Design, name, index and text of this map are copyrighted. This map is subject to change without notice. The County of Ventura is not responsible for any errors or omissions. This map is subject to change without notice. The County of Ventura is not responsible for any errors or omissions. This map is subject to change without notice. The County of Ventura is not responsible for any errors or omissions.



30000  
MANDALAY COUNTY PARK  
(OUTRIGGER WAY)

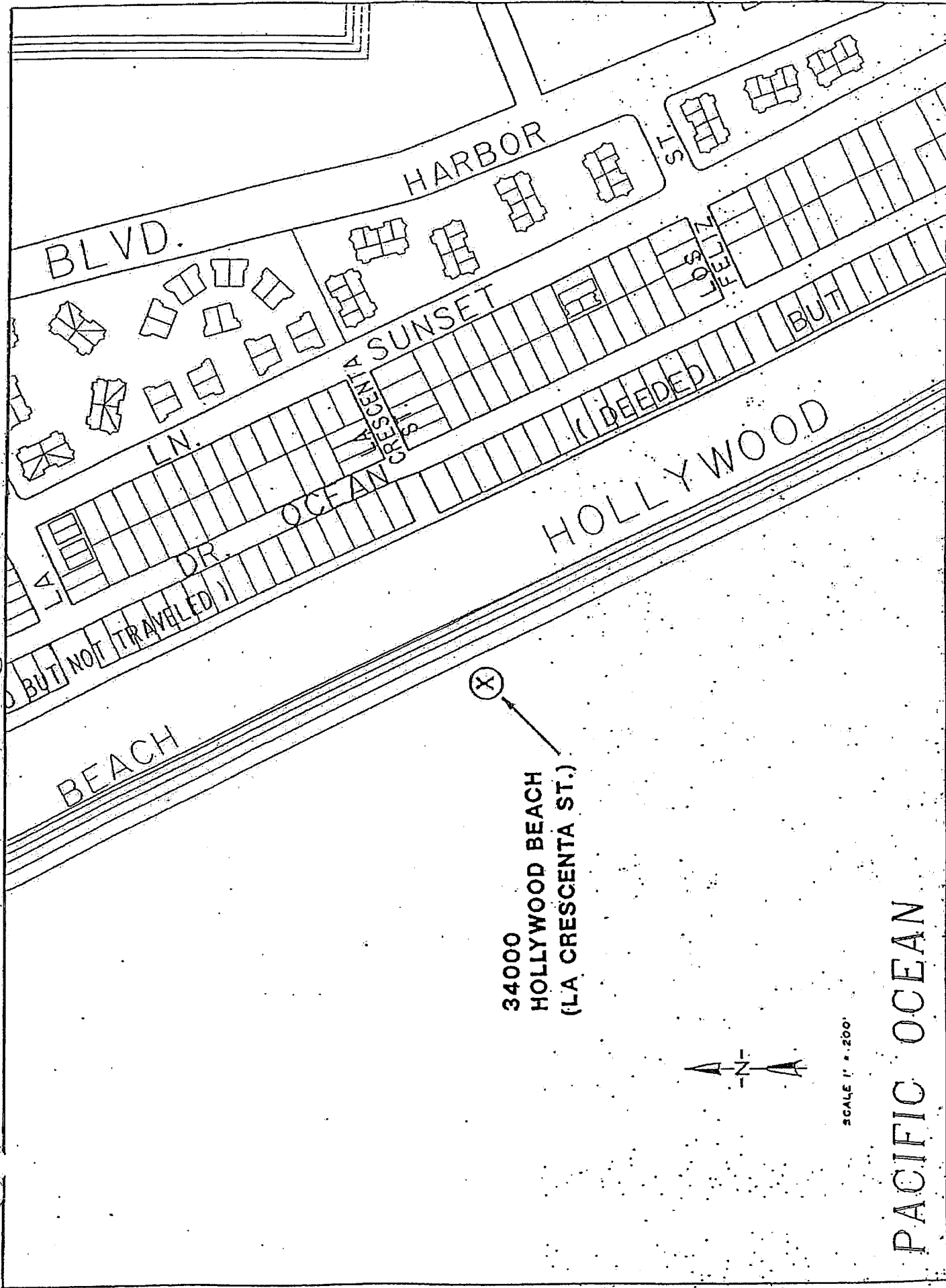


SCALE 1" = 200'

PACIFIC OCEAN







BLVD.

HARBOR

SUNSET

LN.

OCEAN

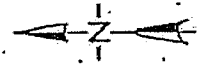
DR.

BEACH

HOLLYWOOD

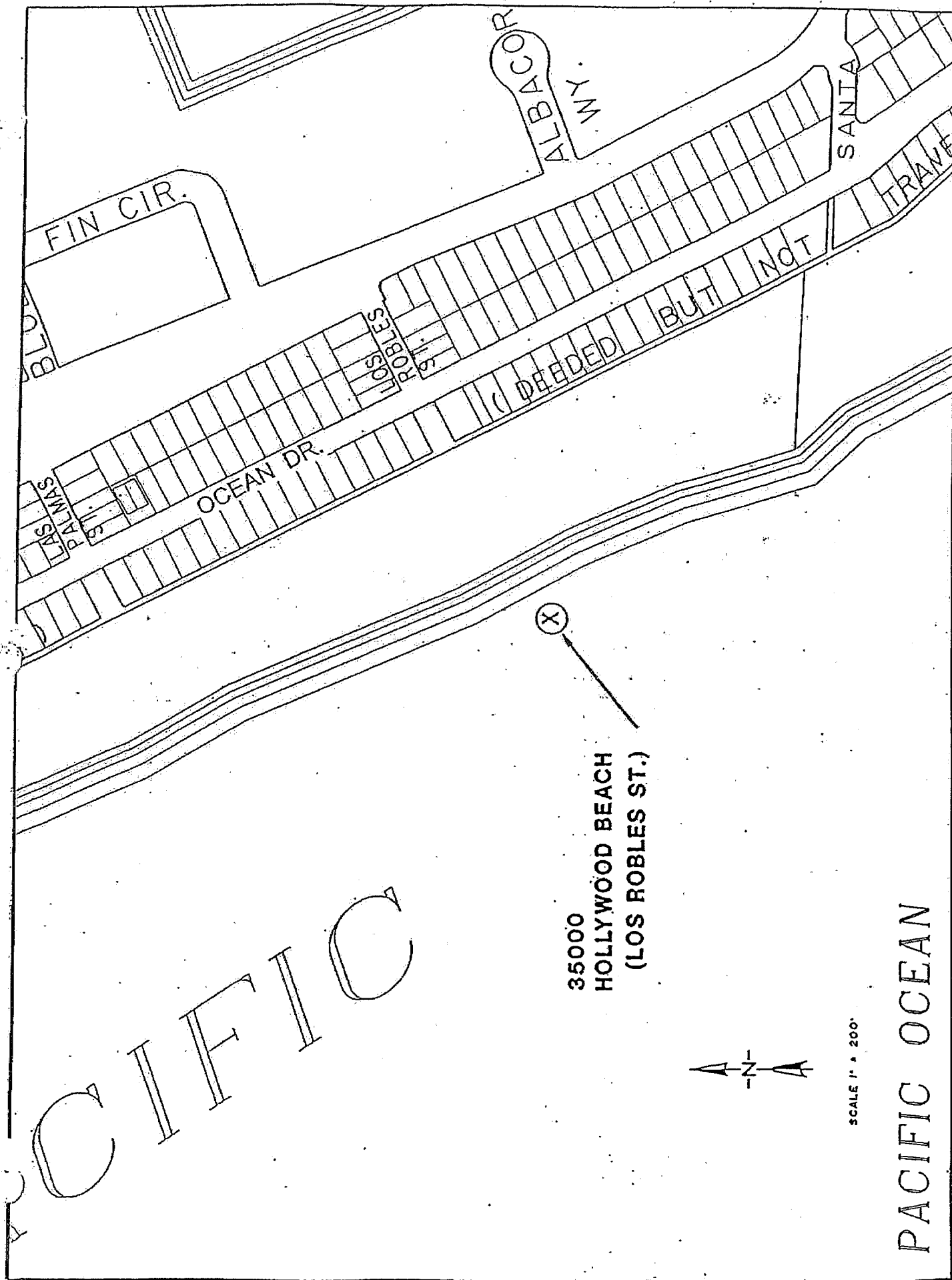
X

34000  
HOLLYWOOD BEACH  
(LA CRESCENTA ST.)



SCALE 1" = 200'

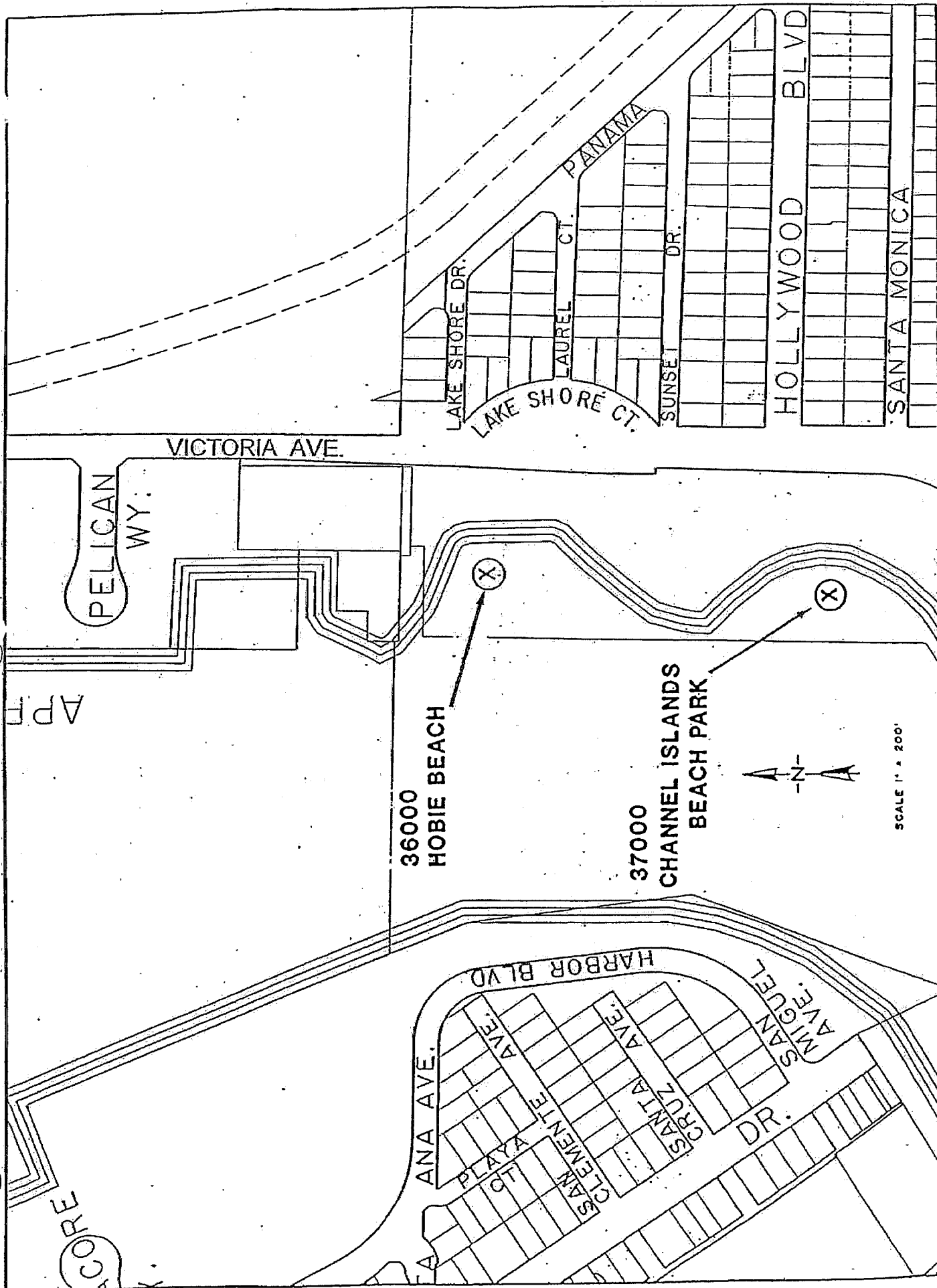
PACIFIC OCEAN



Copyright © 1999 by County of Ventura. District maps, letters and text of this map are copyrighted. It is unlawful to copy or reproduce, either in digital or paper form, any part thereof for private use or resale.

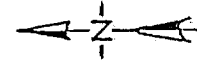
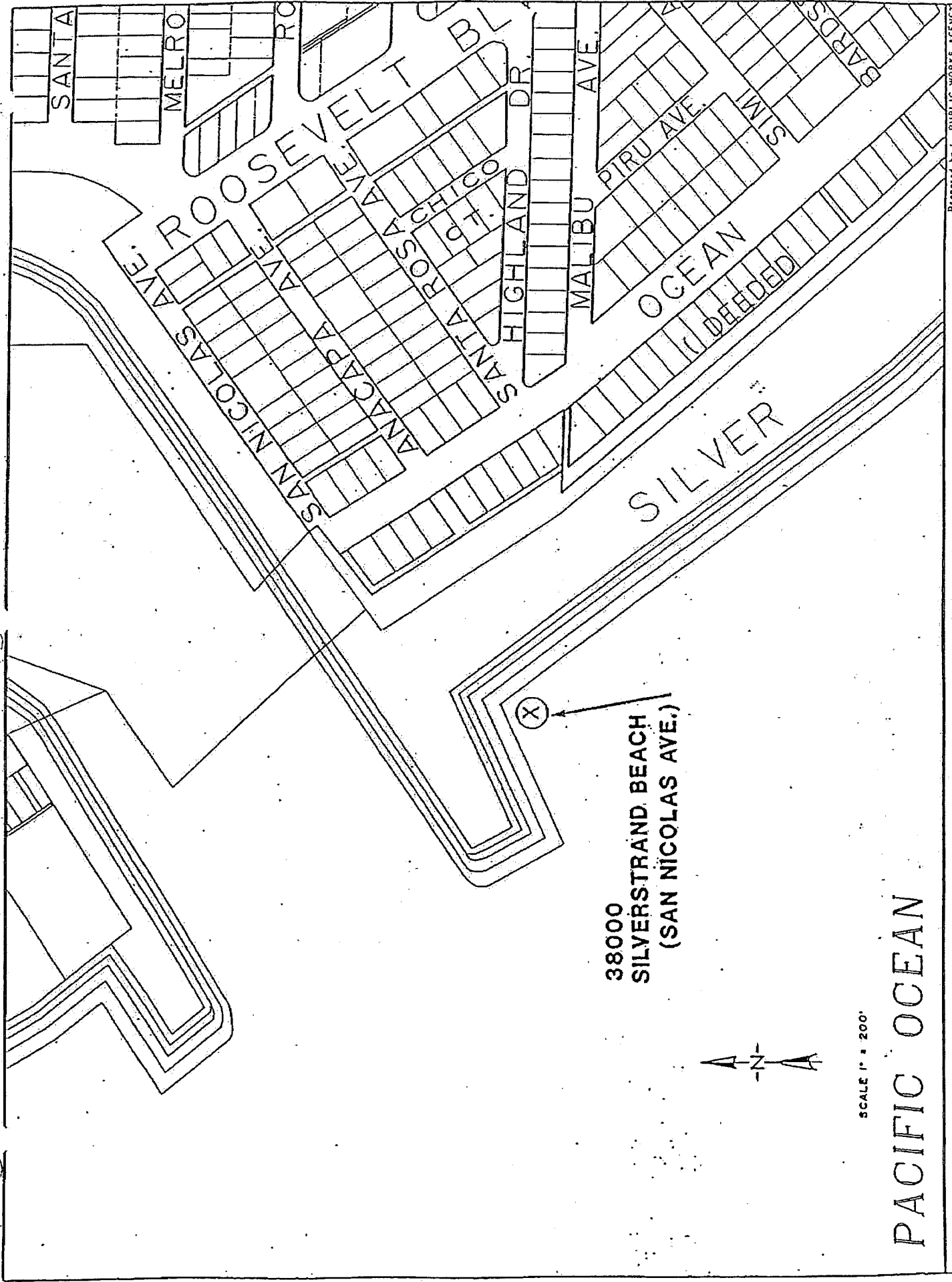
Planned, this map was created by the Ventura County Geographic Information Systems (GIS) Department. While it contains data collected by the County and other public agencies, the County does not warrant the accuracy or reliability of the data or the results of any analysis or interpretation of the data.

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
12/19/99



Copyright © 1995 by County of Ventura. Outline, names, labels and text of this map are copyrighted. No part of this map may be reproduced without written permission of the County of Ventura. This map is for informational purposes only and should not be used for legal or financial purposes. The County of Ventura is not responsible for any errors or omissions on this map. Prepared by: PUBLIC WORKS AGENCY, COUNTY OF VENTURA, MAPPING DIVISION.





SCALE 1" = 200'

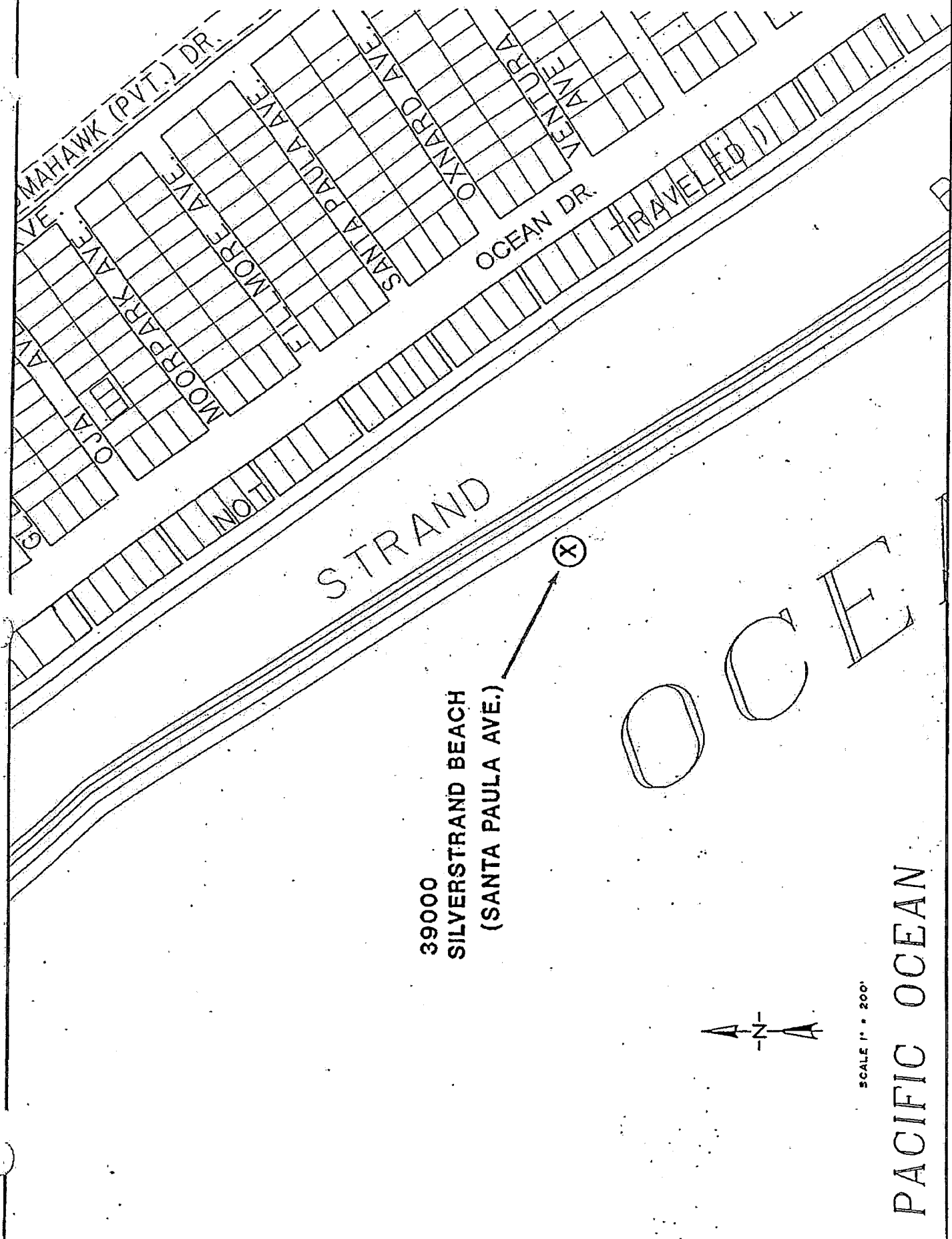
PACIFIC OCEAN

38000  
SILVERSTRAND BEACH  
(SAN NICOLAS AVE.)

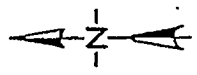
Copyright © 1955 by County of Ventura. Design, maps, labels and text of this map are copyrightable. It is unlawful to copy or reproduce, either in whole or in part, any part thereof for any other use or resale.

Warning: This map was made by the Ventura County Surveying and Mapping Division, which is not a public agency. It is not a public map. It is not a public document. It is not a public record. It is not a public document. It is not a public record. It is not a public document. It is not a public record.

Prepared by PUBLIC WORKS AGENCY  
COUNTY OF VENTURA

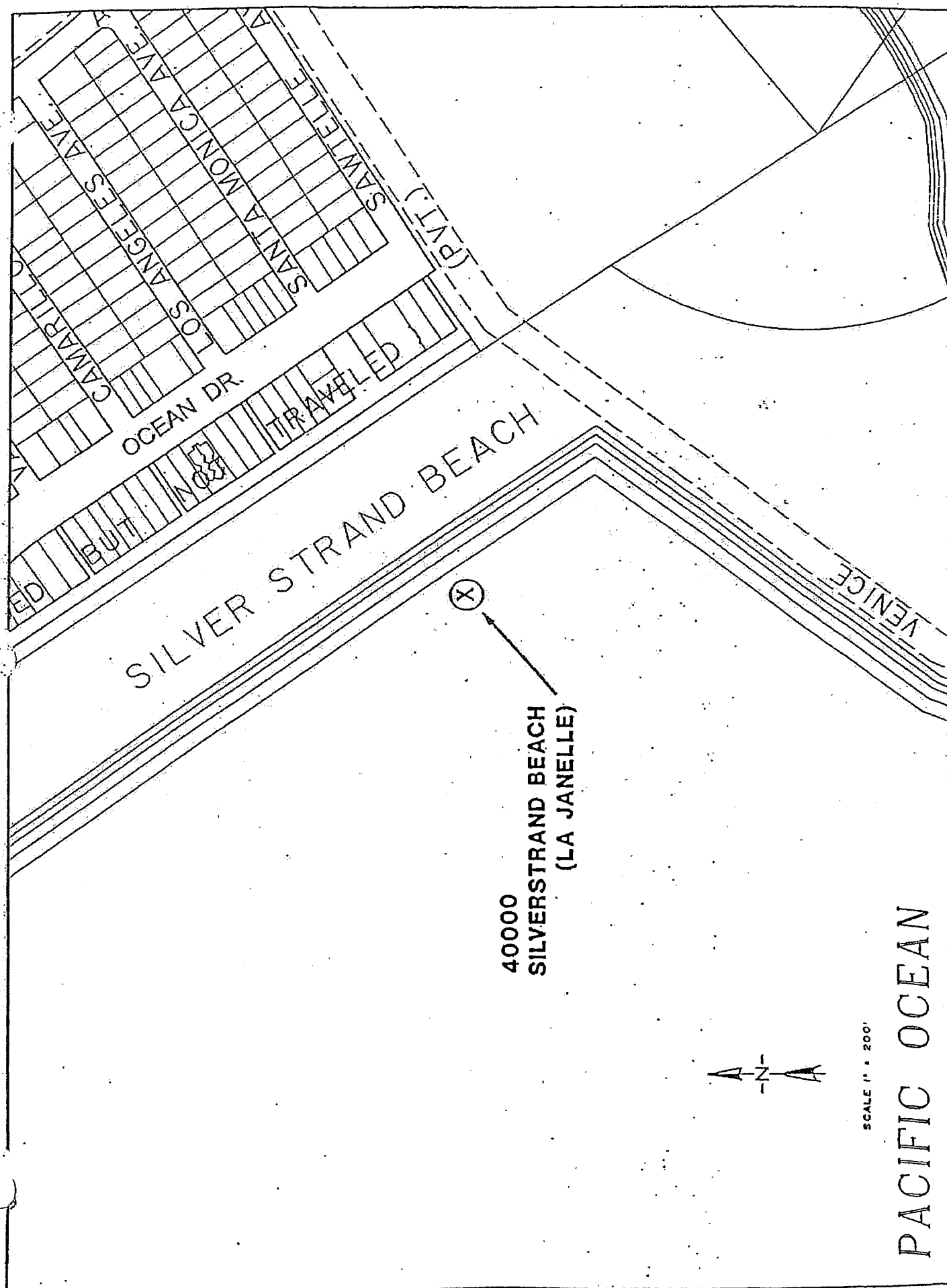


39000  
SILVERSTRAND BEACH  
(SANTA PAULA AVE.)



SCALE 1" = 200'

PACIFIC OCEAN



SCALE 1" = 200'

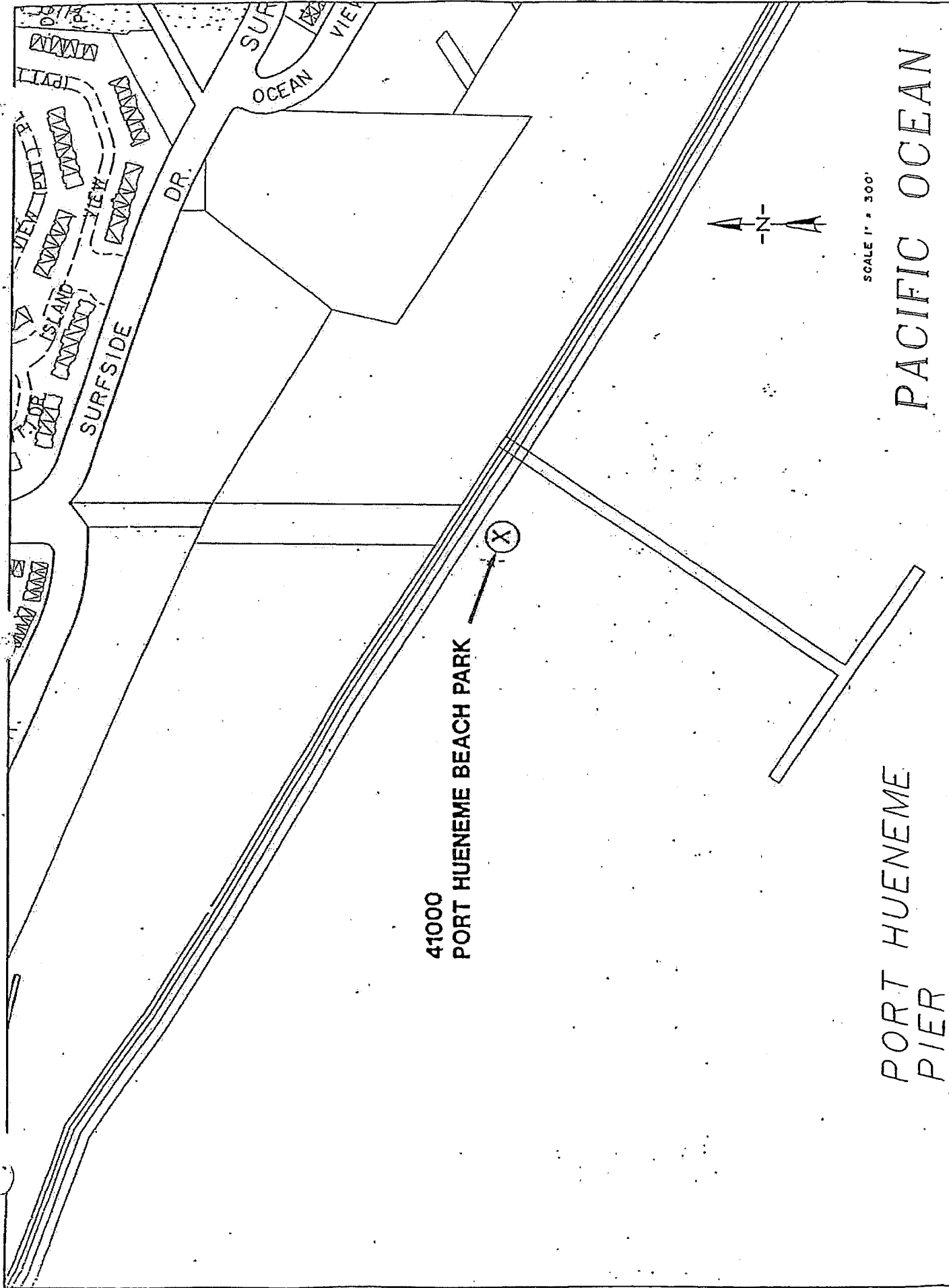
PACIFIC OCEAN

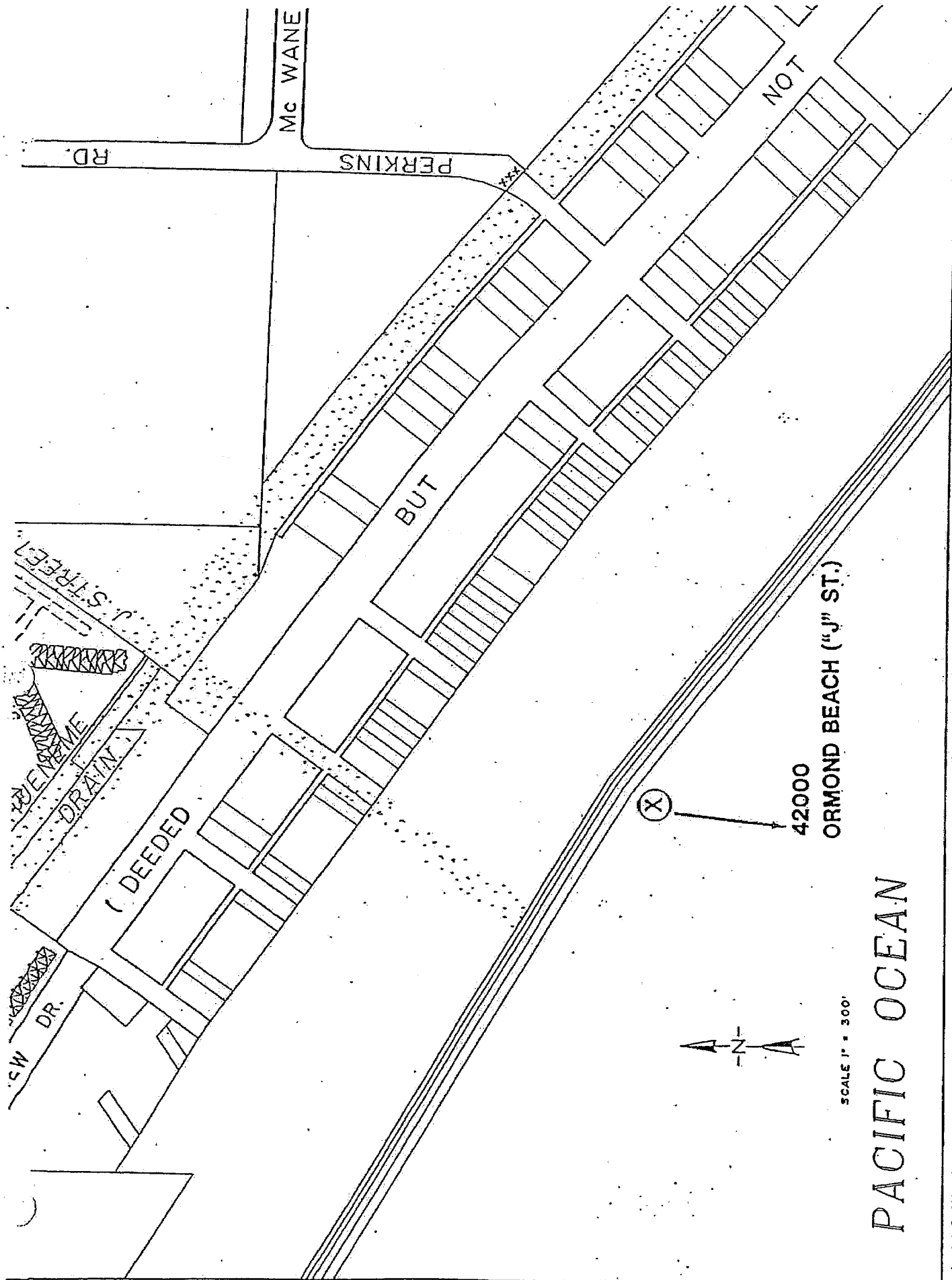
40000  
SILVERSTRAND BEACH  
(LA JANELLE)

Copyright © 1999 by County of Ventura. Design, name, color and that of this map are trademarks. It is unlawful to copy or reproduce, either in whole or part, from any part thereof for purposes not as shown.

WARNING: This map was created by the Ventura County Geographical Mapping Division (GMD), which is not a public agency. It is not a public agency and does not warrant the accuracy of this map. The user assumes all responsibility for the use of this map. The user assumes all responsibility for the use of this map.

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
MAPPING DIVISION

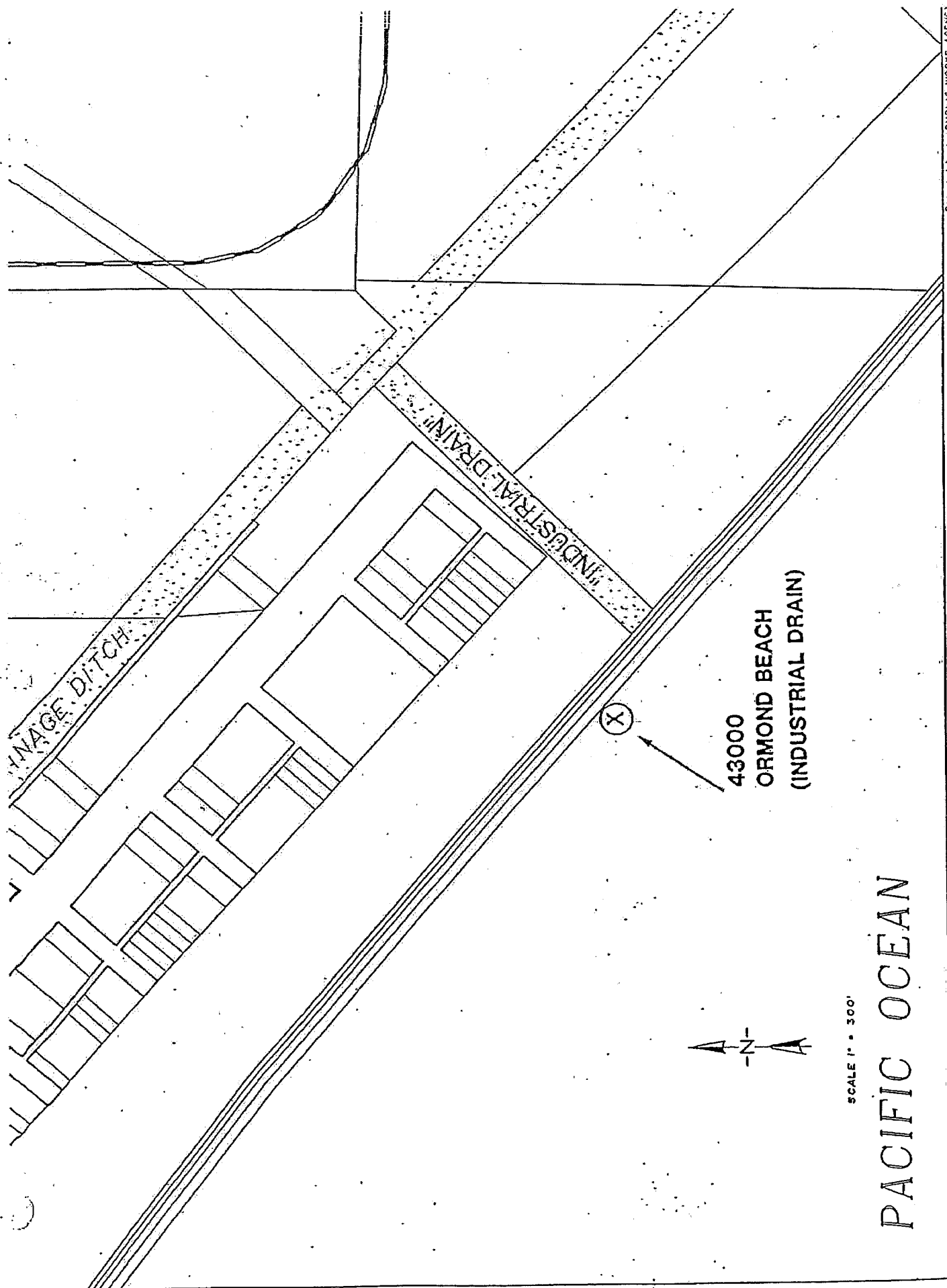


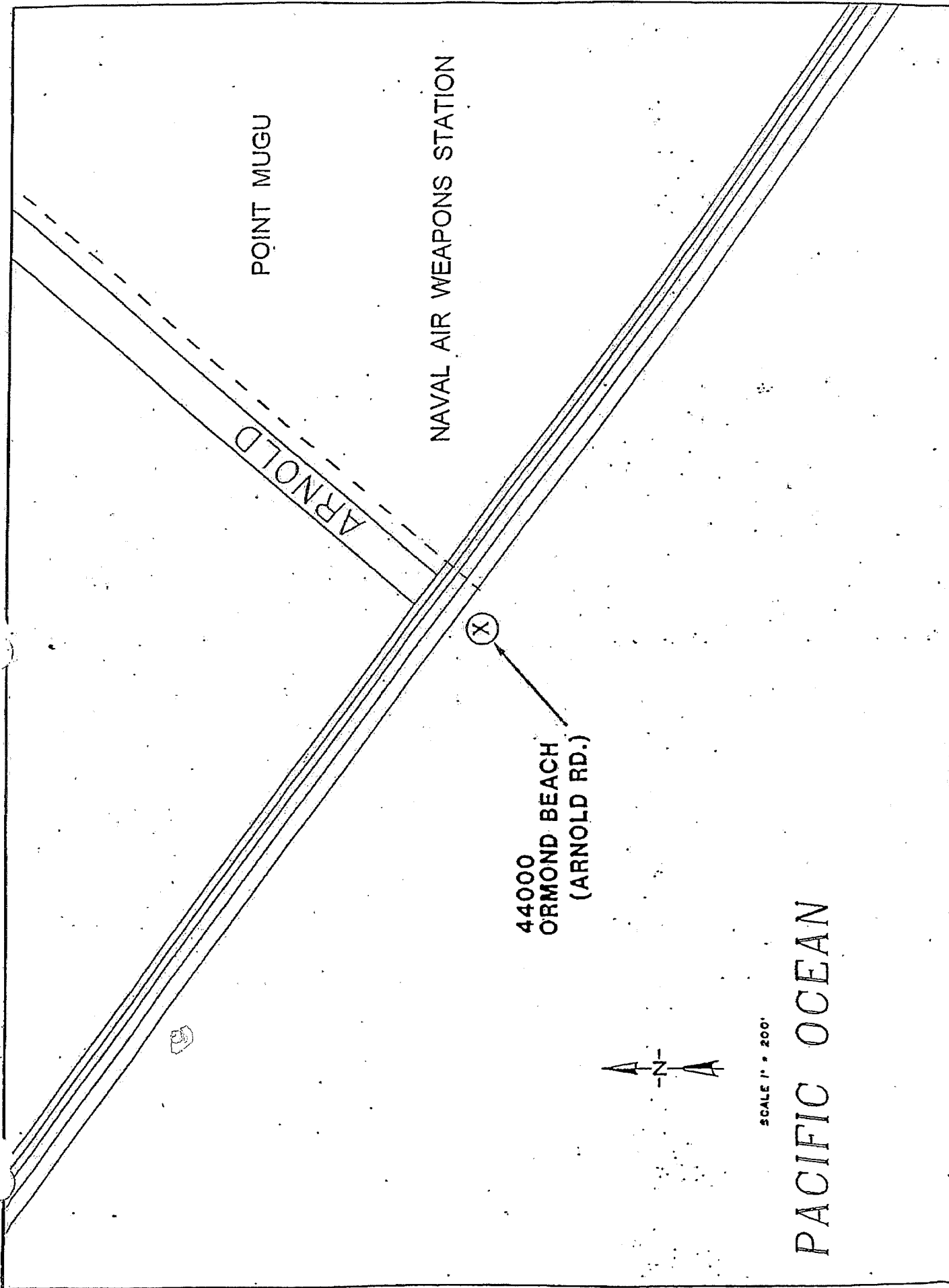


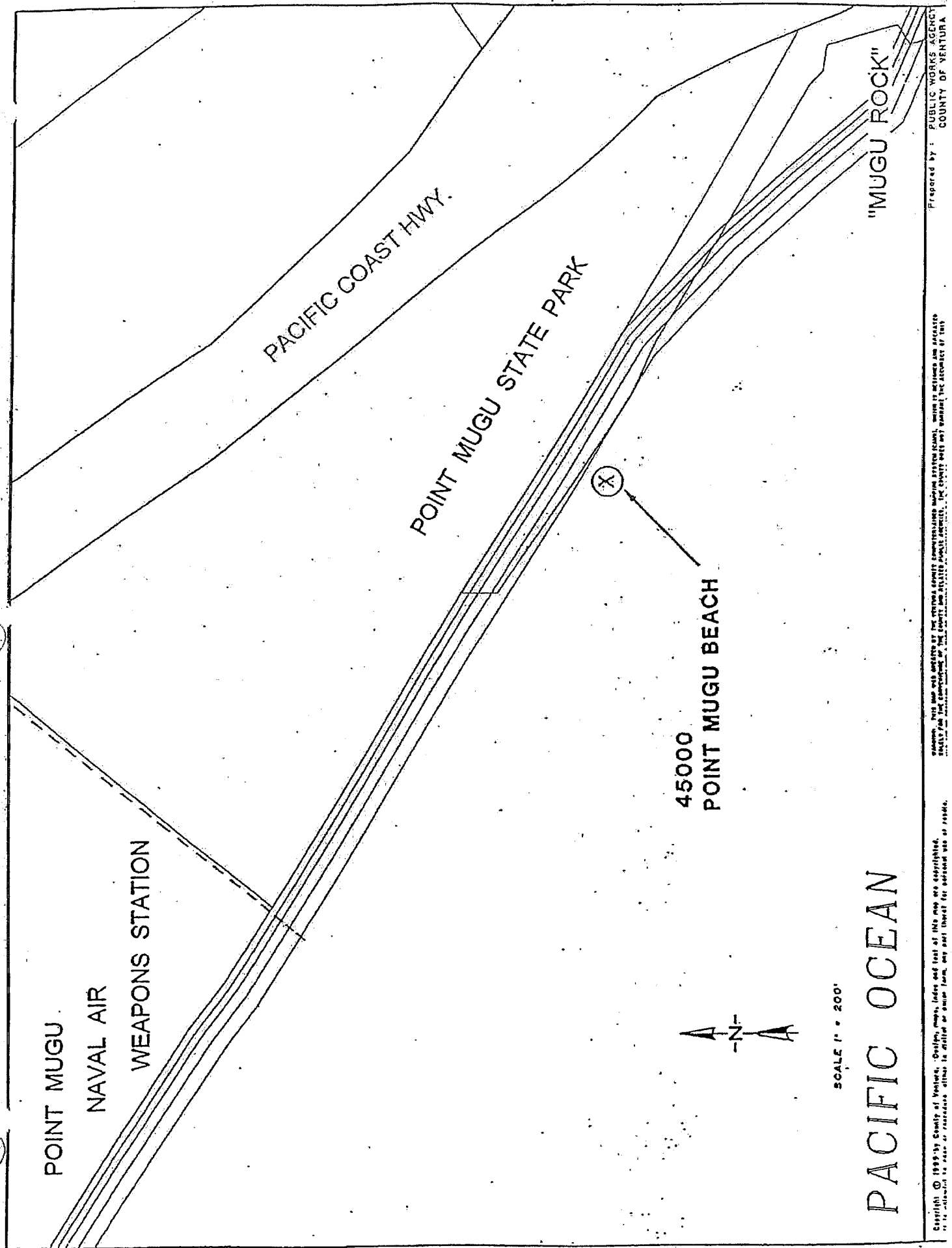
Copyright © 1959 by County of Ventura. Quilts, maps, index and text of this map are copyrighted. It is unlawful to copy or reproduce, either in digital or paper form, any part thereof for personal use or resale.

Warning: This map was created by the Ventura County Planning Agency, which is not responsible for the accuracy of the information shown on this map. It is not intended to be used for any purpose other than for general information. The County of Ventura does not warrant the accuracy of the information shown on this map.

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
MAPPING DIVISION







POINT MUGU

NAVAL AIR

WEAPONS STATION

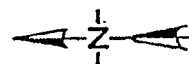
PACIFIC COAST HWY.

POINT MUGU STATE PARK

45000  
POINT MUGU BEACH

PACIFIC OCEAN

SCALE 1" = 200'



"MUGU ROCK"

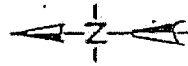


PACIFIC COAST HWY.

POINT MUGU STATE PARK

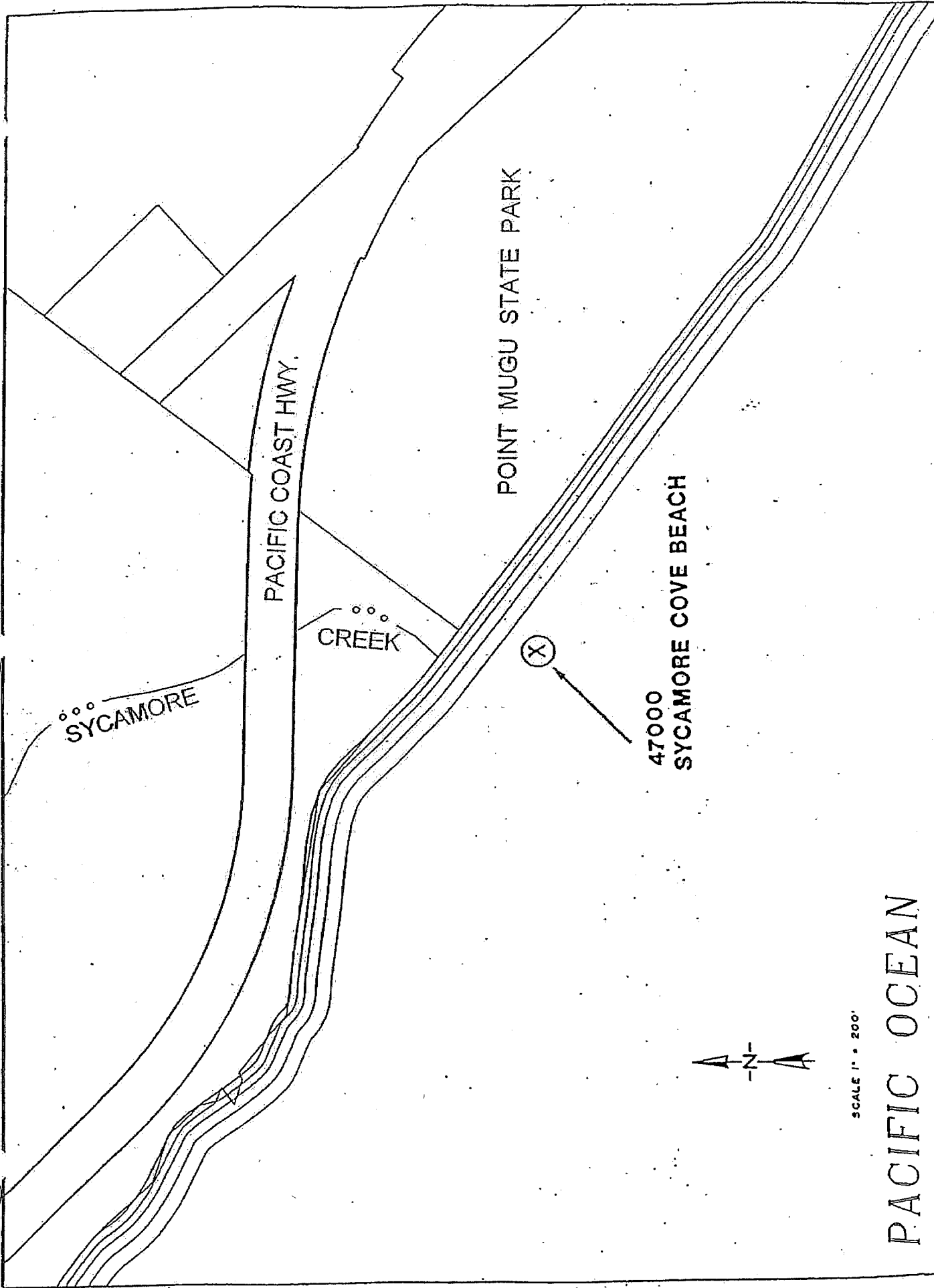
46000  
THORNHILL BROOME BEACH

(X)



SCALE 1" = 200'

PACIFIC OCEAN



SCALE 1" = 200'

PACIFIC OCEAN

POINT MUGU STATE PARK

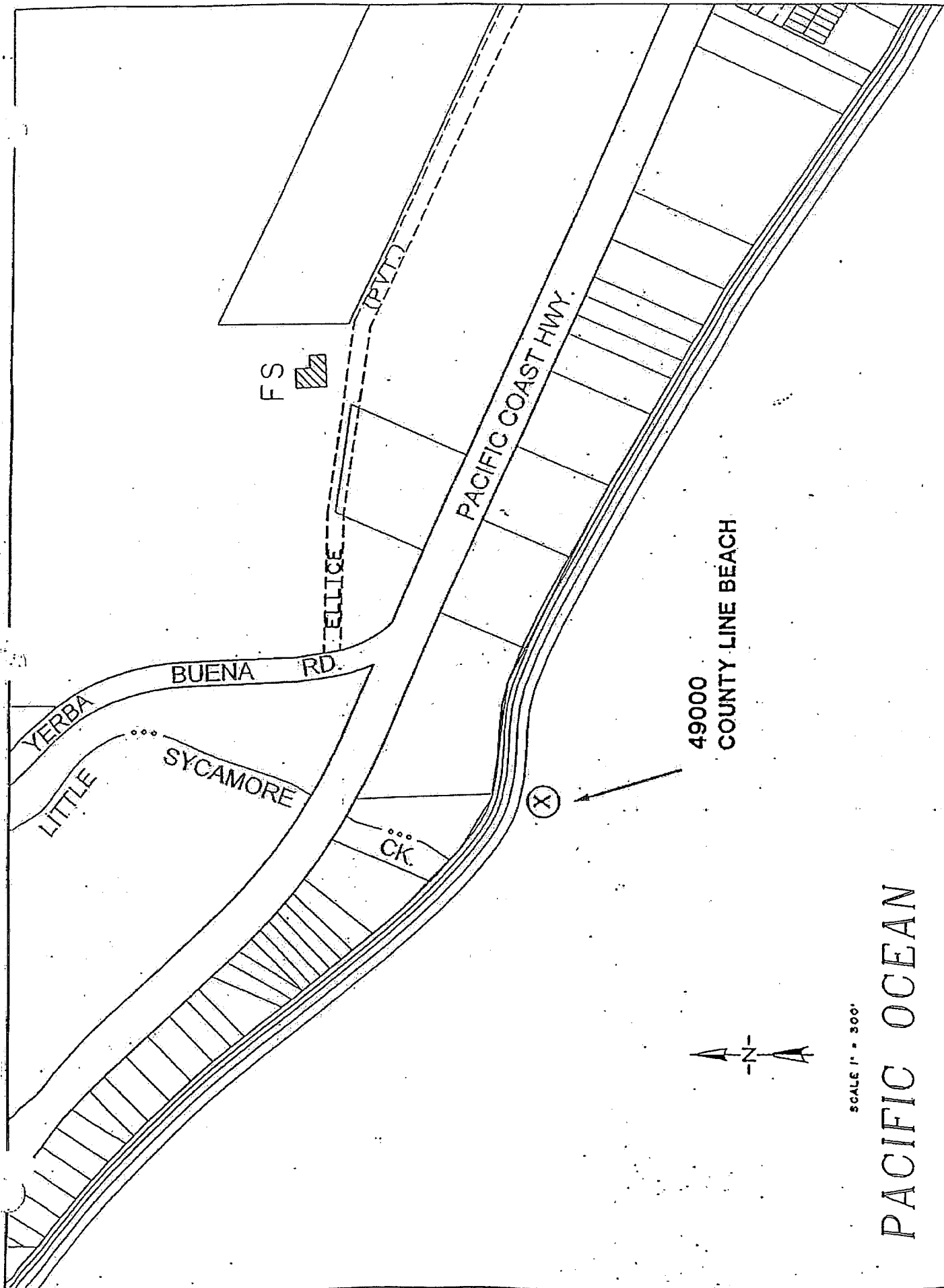
PACIFIC COAST HWY.

... CREEK

... SYCAMORE

47000  
SYCAMORE COVE BEACH

(X)



SCALE 1" = 300'

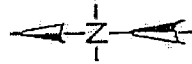
# PACIFIC OCEAN

LOS ANGELES  
VENTURA

(COUNTY LINE)

PACIFIC COAST (ST. HWY. 1) HWY.

50000  
STAIRCASE BEACH



SCALE 1" = 300'

PACIFIC OCEAN

Copyright © 1955 by County of Ventura. Outline, map, index and text of this map are copyrighted. It is unlawful to copy or reproduce, either in whole or in part, any part thereof for purposes other than those for which it was prepared.

Warning: This map was prepared by the Ventura County Engineering Department, which is not a public agency. It is not a public document and is not to be used for any purpose other than that for which it was prepared. It is not to be used for any purpose other than that for which it was prepared.

Prepared by: PUBLIC WORKS AGENCY  
COUNTY OF VENTURA  
MAPPING DIVISION

## **Attachment 6**

### **Ocean Water Sample Collection Procedure**

County of Ventura  
Environmental Health Division

OCEAN WATER QUALITY MONITORING PROGRAM

*Sampling Procedure*

Prior to arrival at sample collection location:

- Read and understand the Ventura County Public Health Laboratory's "Collection and Submission of Ocean Samples for Bacteriological Testing" (attached). The OWQMP's sampling procedure, which follows, augments the P.H. Lab's document.
- Ensure that an adequate supply of sample bottles has been obtained from the Public Health Lab.
- Dress in the proper sample collection attire, and take all necessary precautions for personal protection and safety: waders/rubber boots, gloves, hat, sun screen, sun glasses, etc.

OWQMP Sampling Procedure:

1. Upon arrival at the site, provide the required information on the sample bottle label: date, time, sample location number.
2. Secure the sample bottle in the holder at the end of the sampling stick. Carefully open the bottle.
3. Carefully wade into the ocean into water that is ankle-to-knee deep. Stand so that you are facing the ocean and incoming waves. **DO NOT TURN YOUR BACK TO THE WAVES.**
4. Prepare to collect a sample of the incoming water flow, i.e., as the wave passes by on the way into the shore.
5. Position the bottle so that it is upside down and lower the bottle 4"-6" below the surface of the water. While submerged, rotate the bottle so that the trapped air escapes and the bottle fills with 100 ml of ocean water. Avoid collecting sand, sediment, or debris. If the water is very turbid, wait until there is some settling before you collect the sample.
6. Elevate the filled sample bottle from the water, carefully close the lid and secure with plastic locking tab.
7. Take the temperature of the ocean water.

8. Exit the ocean. Do not turn your back to the waves. ~~Walk backwards out of the surf.~~
9. Place the filled sample bottle in the cooler with "blue ice" or other packaged frozen coolant. Do not use regular ice.
10. Complete the field data sheet with all applicable information. Be sure to include any observations related to the sample or the location, e.g., # of gulls/birds, odors, dead sea lions, unusual circumstances, etc.
11. Clean hands with waterless - antibacterial hand cleaner.
12. Proceed to the next sampling location.
13. If you encounter any problems or situations that will affect the safe and timely collection of samples, contact the OWQMP Coordinator at 654-3524.

**Submission to Laboratory:**

- Samples must be delivered to the lab within five (5) hours of collection.
- The lab must receive samples no later than 2 P.M.
- Should you encounter any problems or situations that will affect the lab schedule, contact the OWQMP Coordinator at 654-3524 and the lab at 652-5965.

Ventura County Public Health Department Laboratory  
2240 E. Gonzales Rd., Suite 210  
Oxnard, CA 93036-4612  
Ph: (805) 981-5131  
FAX: (805) 981-5130

## COLLECTION AND SUBMISSION OF OCEAN SAMPLES FOR BACTERIAL TESTING

### Purpose:

To outline the procedure to be used by individuals collecting ocean water specimens for bacteriological testing at Ventura Co. Health Dept. Lab. In order to obtain a meaningful report on bacteriological quality of water submitted, the following procedure must be followed carefully. The test performed in this laboratory is for the bacterial quality and will not ascertain the chemical quality of the water.

### Sample Bottles:

- A. Samples should only be collected in specimen containers supplied by the laboratory. Samples collected in any other container are meaningless and will not be tested.
- B. Do not rinse the specimen container. **Discard the sodium thiosulfate tablet in the bottle.** (Only necessary when collecting chlorinated water samples)
- C. Store bottles in a clean place where they will not collect dirt or dust that may contaminate the bottle when it is opened to collect the sample.

### Sample Collection:

1. Label the sample container with the date, time, and sample location ID number.
2. Carefully wade into the ocean to ankle or knee deep water.
3. Stand facing the ocean (your back should be to the shoreline).
4. Open the sterile sample container carefully and remove tablet from sample bottle (if not done previously). Be careful when flipping the flip-top cap. Do not allow your fingers to contaminate the lip or inside of the container.
5. On an incoming wave, hold the bottle upside down, with lid open. Plunge the bottle 4-6" below the surface; turn the bottle upright to fill with water. **Avoid collecting sediment, debris or sand in the bottle.** If the ocean is very turbid, wait until the



- wave begins to recede before collecting the sample. Be sure to collect 100 ml of ocean water.**
6. Snap the lid onto the container.
  7. Take the temperature of the ocean water.
  8. Place sample bottles into an insulated cooler containing "blue ice" or other coolant.
  9. Transport all samples collected to the laboratory within 5 hours of collection, and before 2:00 p.m.
  10. Place specimens in designated refrigerator in the lab, and ensure lab personnel receive copy of the field observation sheet from OWQMP personnel.

#### **Submission to Laboratory**

- A. Samples must be delivered to laboratory within 5 hours of collection.
- B. Samples must be received by laboratory no later than 2:00 p.m.

**Attachment 7**

**Brochure — Ocean Water Quality Monitoring Program**



# Ocean Water Quality Monitoring Program



**If you see this sign posted  
at any Ventura County beach:**

- \* Stay out of the ocean for at least 50 yards on either side of the sign.
- \* There are levels of bacteria in the ocean water that may make you sick!



County of Ventura Environmental Health Division  
800 South Victoria Avenue  
Ventura, California 93009-1730



County of Ventura  
Environmental Health Division  
800 South Victoria Avenue  
Ventura, California 93009-1730

## Ocean Water Quality Monitoring Program (OWQMP)

### Background

In September 1998, the Ventura County Board of Supervisors established a program in the Environmental Health Division (EHD) to monitor the bacteriological quality of ocean water at Ventura County beaches.

### The Program

The OWQMP provides the public with information about ocean water quality via a telephone hotline, website and press release. Over 50 individual beaches are sampled each week and tested for certain bacteria that indicate the potential for increased risk to human health. Sample results are compared with state standards for ocean water quality.

If a sample result fails to comply with one or more of these state standards, the beach is posted with signs warning the public to avoid body contact with the ocean water. This information is also available on the EHD telephone hotline, website and in press releases distributed to the media.

The health warning stays in effect for the beach until resampling indicates that the water meets state standards.

Common symptoms associated with exposure to ocean water of poor bacteriological quality include:

- ♦ vomiting, diarrhea, nausea
- ♦ fever, chills
- ♦ ear, nose, throat irritation
- ♦ skin rash

If you experience any of these symptoms, or otherwise become ill after visiting the beach, contact your doctor and the County Public Health Department, Communicable Disease Control Section (CDCS). Also, please complete the illness report form available on the OWQMP website and at the CDCS office.

The OWQMP website includes up-to-date information on ocean water quality. It also contains regional and detailed maps of sampling locations, a list of beach postings, and sampling results data.

### Storm Drains and Runoff Water

The OWQMP is also responsible for alerting the public about possible health risks from contact with storm drain water and runoff water that flows onto beaches.

Storm drain water and runoff can carry disease-causing bacteria to the ocean. Therefore, as a general precaution, you should avoid body contact with storm drain water, runoff, and the ocean near storm drains.

Permanent warning signs are posted at specific storm drains along the coast to remind you of this risk. Check the website for locations.

Remember, storm drains include pipes, culverts, rivers, creeks and streams.

Important OWQMP Phone Numbers  
and Website Information

Telephone Hotline

805.655.5572

OWQMP Website

www.venturahealth.org/owqmp

OWQMP Coordinator

805.655.5572

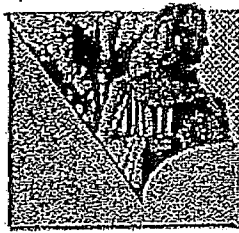
Ventura County Public Health Department

805.655.5572

Information about ocean water quality  
in Ventura County beaches is updated  
throughout the week and provided on the  
telephone hotline and the OWQMP Website.

## Attachment 8

### Frequently Asked Questions



County of  
**Ventura**

Resource Management Agency

**ENVIRONMENTAL HEALTH**

**OCEAN**

Beaches  
Currently Posted

Beaches &  
Sampling Results

5 Week  
Sampling History

Logs of Postings

Press Releases

Program Information

Map Contacts

FAQs

Ocean Link

How to Report Fault

## **OCEAN WATER QUALITY MONITORING PROGRAM**

### **Frequently Asked Questions**

#### **1. Where is it safe to swim?**

The ocean at Ventura County Beaches complies with State bacteriological quality standards most of the time. Occasionally, runoff, animal or human contamination, and/or sewage spills may cause unsafe levels of bacteria in the ocean waters. In the event this occurs, warning signs will be posted along the affected beach areas.

#### **2. Why are storm drains and runoff a problem?**

Storm drain and runoff water can contain disease-causing pathogens and viruses. As a general precaution, swimmers should avoid body contact with storm water or runoff, and the ocean waters impacted by the runoff. Permanent signs will be placed at or near each drain that flows onto the beach, warning the public to avoid storm water and runoff. After a rainstorm, the ocean waters impacted by the storm should be avoided for at least 72 hours due to high bacteria levels that could be present in the storm - induced runoff.

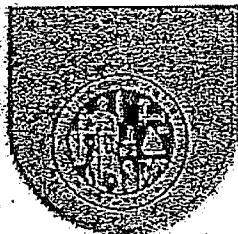
#### **3. What are the ocean waters tested for?**

The ocean water is analyzed for "indicator bacteria" (total coliform, fecal coliform and enterococcus) that indicate the possible presence of disease causing bacteria, viruses or protozoa. Sample results are compared to State Standards for ocean water quality. If the ocean does not meet the State Standards at a beach, this beach will be posted with signs warning the public to avoid body contact with the affected ocean water. The warning stays in effect until resampling indicates the water meets the State Standards and at that time, the signs will be removed. Information regarding ocean water quality is provided to the public via telephone hotline (805) 662 - 6555, press releases, the world wide web: [www.ventura.org/envhealth/programs/ocean/](http://www.ventura.org/envhealth/programs/ocean/), and signs posted at the beach. The beach itself can still be used for picnics, sunbathing, etc. when warning signs are posted advising the public to avoid contact with ocean water.

#### **4. Where do these "indicator bacteria" come from?**

Bacteria are a natural component of our environment. Indicator bacteria can be found in soils, decaying vegetation and animal waste. Humans also contribute to bacteria levels in the environment via discharges of raw or partially treated sewage, soiled diapers, improper garbage disposal, etc. Bacteria may also enter the ocean through runoff. Runoff can happen anytime of the year when rainfall or excessive water use from irrigation, car washing, and other sources carry litter, lawn clippings and other pollutants into storm drains.

#### **5. What pathogens may be found in swimming waters contaminated with sewage and possibly in runoff?**



Pathogenic Agent	Disease
<b>I. Bacteria</b>	
<i>E. coli</i>	Gastroenteritis
<i>Salmonella typhi</i>	Typhoid fever
<i>Other salmonella species</i>	Various enteric fevers, gastroenteritis, septicemia
<i>Shigella dysenteriae</i>	Bacterial dysentery
<i>Vibrio cholera</i>	Cholera
<b>II. Protozoa</b>	
<i>Cryptosporidium</i>	Diarrhea - Cryptosporidiosis
<i>Giardia lamblia</i>	Diarrhea - Giardiasis
<b>III. Viruses</b>	
<i>Rotavirus</i>	Gastroenteritis
<i>Norwalkvirus</i>	Gastroenteritis
<i>Coxsackievirus</i>	Various, including severe respiratory disease, fevers, rashes, paralysis, aseptic meningitis, myocarditis
<i>Adenovirus</i>	Respiratory and gastrointestinal infections
<i>Echovirus</i>	Various, similar to coxsackievirus
<i>Poliovirus</i>	Poliomyelitis
<i>Hepatitis A</i>	Infectious hepatitis (liver malfunction), also may affect kidneys and spleen

#### 6. What are the State Standards?

##### \* Single sample standards:

Total Coliforms - 10,000 organisms/100 ml. sample

Fecal Coliforms - 400 organisms/100 ml. sample

Enterococci - 104 organisms/100 ml. sample

Fecal:Total ratio - >1,000 total coliforms if ratio exceeds 0.1

**\* 30 - day log mean standards (of five weekly samples):**

Total Coliforms - 1,000 organisms/100 ml. sample

Fecal Coliforms - 200 organisms/100 ml. sample

Enterococci - 35 organisms/100 ml. sample

**7. What happens to the bacteria/viruses/protozoa in swimming waters?**

- \* Die off to sun, salt water or age
- \* Dilution
- \* Predation by other organisms

**8. When a beach is posted and has failed State bacteriological standards, how much of the beach is affected?**

When a beach has failed to meet State minimum standards, contact with ocean water should be avoided for a minimum of 50 yards on either side of each posted sign. Distances further away from the posted signs comply with State minimum standards.

**9. What can I do when water quality is unsafe at the beach?**

- A. Stay away from storm drains or creeks where runoff flows onto the beach and into the surf zone.
- B. Call the ocean water quality hotline (805) 662 - 6555 or check the Environmental Health's web page ([www.ventura.org/env\\_hlth/ocean.htm](http://www.ventura.org/env_hlth/ocean.htm)) to determine where ocean waters meet State standards.
- C. Play on the sand instead of swimming in posted areas.
- D. Help keep our beaches clean by participating in beach clean - up days and by picking up after yourself every time you go to the beach.

**10. What can I do to help?**

- A. Properly dispose of animal waste. Use a "doggie bag" when walking pets. Keep horse corrals clean. Pick up after your cat.
- B. Use a broom rather than a hose to clean driveways and sidewalks. Control irrigation flows to minimize runoff.



**C. Properly dispose of household paints, chemicals and motor oil: Never pour chemicals on the ground or down storm drains.**

**D. Don't feed wild birds or animals. Their droppings can significantly increase bacteria levels in the ocean.**

---

Copyright 2001 County of Ventura, California. All rights reserved. View our [disclaimer](#).

Comments or questions concerning this page can be e-mailed to: [RMA Web Services](#)